

Theoretical introduction into retrieving information from patents

preliminary version 10 January 2025

COLOPHON

Copyright holder: Octrooicentrum Nederland

Author: Marco de Beurs



Except where otherwise noted, this work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

This license does not apply to:

document in [section C.2](#), document in [section C.3](#)

The source can be found on [Github](#).

Contents

1	Introduction	5
1.1	To the audience	5
1.2	What is a search?	5
1.3	Relevant information	6
2	Basics	7
2.1	Introduction	7
2.2	Recall and precision	7
2.3	Defining relevant results for your research	9
2.4	Working through a set of documents	9
2.5	Selecting a set of documents	11
2.5.1	Text search	11
2.5.2	Search with classification	12
2.5.3	Specialised databases for specific technical fields	13
2.5.4	Queries in search engines	13
2.5.5	Ranking	14
2.5.6	Cited and citing documents	14
2.6	When to stop?	14
3	Classification	16
3.1	Introduction	16
3.2	Classification types	16
3.2.1	IPC types	17
3.2.2	Indexing, deep indexing	19
3.3	Characteristics	20

3.3.1	Introduction	20
3.3.2	Scope of classified documents	20
3.3.3	What is classified and how?	21
3.3.4	Who is classifying and when?	22
3.3.5	Some guides	22
A	Glossary	23
B	Links	26
B.1	National and international IP offices	26
B.2	IP databases	26
B.3	The patent classification schemes	27
C	Documents	29
C.1	F-term 3B168	29
C.2	CPC scheme D06F	36
C.3	CPC definition D06F	45

List of Figures

2.1	The collections of documents used in the recall and precision criteria	8
2.2	Working through a set of documents; the first pass	10
2.3	Working through a set of documents; second pass; reading documents to select the really relevant	10
2.4	Selecting a set of documents	11

Chapter 1

Introduction

1.1 To the audience

Do you want to efficiently manage your product development process for an innovative product? Do you want to avoid potential costly issues after market introduction of an innovative product?

Using information from patents in a timely manner is useful to help you make technical and business decisions throughout the development process and avoid potential issues after market introduction.

To help you find this information, this document presents an introduction into the theoretical background of searching in patent databases.

It is useful for both the novice and more experienced searcher in patent databases to understand the background of choices that have to be made during the searching. These choices have to be made to perform an efficient search and to be able to answer the questions of the search with sufficient quality.

It is not expected that a novice searcher will understand all background information. It will therefore be useful to reread this document at a moment when more experience with searching is achieved.

With experience and the information in this document you should be able to find patent documents efficiently and answer the search questions with sufficient quality.

1.2 What is a search?

Nowadays everyone uses internet search engines, such as Google, to find information. These search engines have algorithms to show the most relevant results first. This is sufficient for most everyday questions.

Finding mainly technical information for research and development requires results that are sufficiently complete, whereby the extent and depth of this information is not known at the outset. These results are very difficult to achieve the way the search engines on the internet work.

The basic knowledge required to find this information for research and development in the patent databases is covered in [chapter 2](#). This basic knowledge gives you the means to select a workable set from the enormous amount of patent documents.

A first overview of the search process can already be given:

The first part of searching is:

Selecting a set from the enormous amount of patent documents
that can be treated in a certain time.

The second part is:

Selecting the relevant documents from this first set.

The most difficult part in this process is:

Knowing when to stop.

1.3 Relevant information

The questions to be answered that arise during the research and development process, determine which information is relevant. Defining these questions and relevant information is covered in other manuals, such as the patent landscaping analysis manual.

The required relevant information has a major influence on a successful result, but usually has little influence on the method of searching. The basic knowledge described herein therefore applies to many search questions.

Chapter 2

Basics

2.1 Introduction

Knowing what you need is crucial before you can start a search. Therefore first the key criteria to define the quality and efficiency of the search are introduced in [section 2.2](#).

Then the process of defining and finding relevant documents is described in [section 2.3](#) and [section 2.4](#)

Knowing the key criteria and what results are needed enables the selection of a set of documents in [section 2.5](#) and knowing when the search can be finished in [section 2.6](#).

2.2 Recall and precision

Recall and precision are key criteria for the assessment of the search process, because the quality and efficiency of the search process are important. Although recall is difficult to measure, it can still be used to understand the quality of your search.

In practice, 100% recall and 100% precision at the same time is not possible. Performing a search is therefore always a balance between effort and quality.

Recall (how complete it is) is defined as: ratio of relevant documents found compared with all relevant documents.

$$\text{recall} = \frac{\text{relevant documents found}}{\text{all relevant documents}}$$

Precision is defined as: ratio of relevant documents found compared with all documents found.

$$\text{precision} = \frac{\text{relevant documents found}}{\text{all documents found}}$$

The collections of documents used for both criteria are shown in figure 2.1.

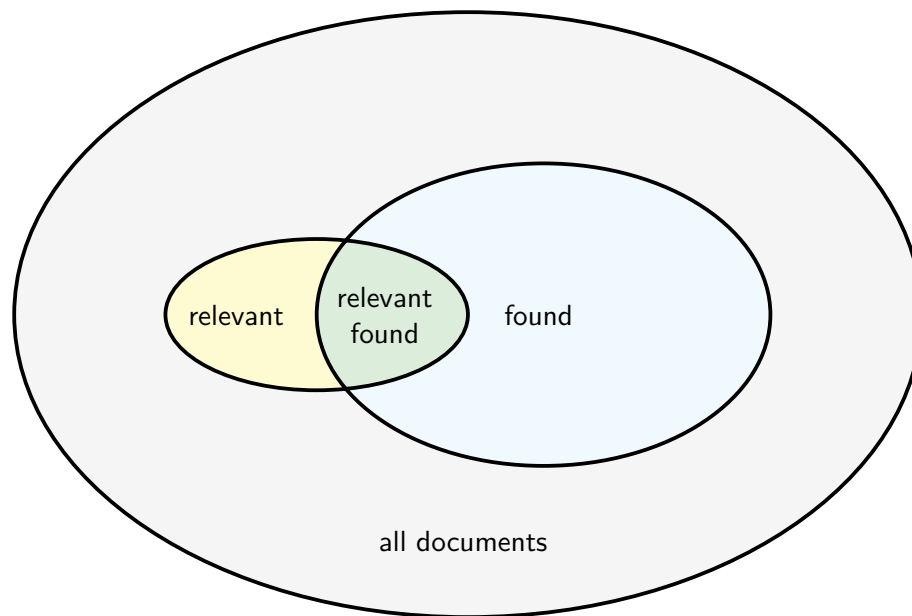


Figure 2.1: The collections of documents used in the recall and precision criteria

A proper quality of a search for patent documents is in many cases important. In for example product development, it is important that your questions about the patent information to be used for your development are completely answered. Missing a relevant document can lead to unnecessary development work or to the inability to sell a product. This can have serious financial consequences.

The recall is thus a good criteria to assess the quality of the search. Normally the achieved recall can only be estimated by redoing the search by another person. It is therefore not a criterium that can be easily used to assess the quality of the search. In the following parts is described how to work with the recall criterium.

The efficiency of a search has an important effect on the costs of a search. The precision criterium can be used for assessing the efficiency. This can easily be measured after the search is finished by comparing the total number

of documents selected to the relevant documents. This comparison has on its own almost no value. When comparing different searches or with peers, this comparison can be used for assessing efficiency. Also in the following parts the use of this criterium is described.

In general experience recall and precision work in opposite directions: As recall improves, precision decreases, and as precision increases, recall decreases. During searching you will have to make a choice about this balance for yourself. The big problem with this is that normally you do not know the recall of your search. Experience with searching will help to make better estimations for this balance. This should also become clear in the following parts.

For more information about recall and precision, see for example [wikipedia](#).

2.3 Defining relevant results for your research

Before starting a search you should have a clear picture of what the relevant results should be. The relevant results are determined by the questions to be answered in the research.

For example for a patent examiner the claims of the patent application determine how relevant the searched documents are. This is a relative clear criterion to use for the selection of the documents. If you are doing a research for technical solutions the criterion to select documents is less clear, because often you are searching for concepts or all solutions to a certain problem. What helps in this case is to determine a technical feature or a few features that have to be present in a document to be relevant. This will allow you to quickly select possible relevant documents.

Another important reason to have a clear definition of the relevant results, is that it allows you to determine what *not* to look for. If it is possible to exclude certain technical fields or applications, this will reduce the amount of documents (and thus increase the precision).

2.4 Working through a set of documents

Once you have defined what the relevant results are, you can start selecting the relevant documents.

It is often difficult to quickly determine if a document is really relevant. To determine this you normally have to read the document. Reading too many documents is not possible in a limited time. Therefore as a first pass you select possible relevant documents from a workable set of documents (see

figure 2.2). You select possible relevant documents by using your criterion for selecting these documents as described in the previous paragraph.

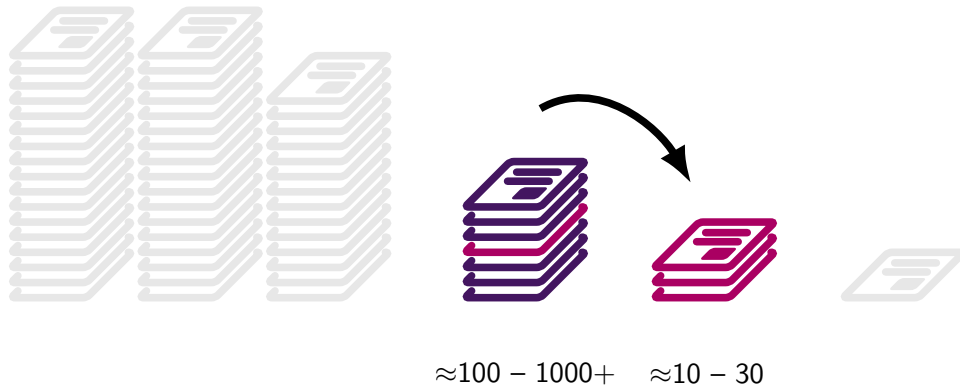


Figure 2.2: Working through a set of documents; the first pass

In this first pass it is normally not necessary to read the documents. It is often sufficient to look at the figures or read the abstract (or also a part of the description) to see if a document will pass or fail your criterion. In this way you create a selected group of possible relevant documents in the first pass.

When the first pass is done, it is time to have a more accurate look at the selected group of documents. By reading the documents the really relevant documents can be found (see figure 2.3). These documents give the answers to the questions of your research.



Figure 2.3: Working through a set of documents; second pass; reading documents to select the really relevant

2.5 Selecting a set of documents

Selecting a workable set containing all relevant documents is the most important part of a search, because this has a huge influence on the quality and amount of work to go through the set (recall and precision). See figure 2.4 to get an impression of the number of documents.

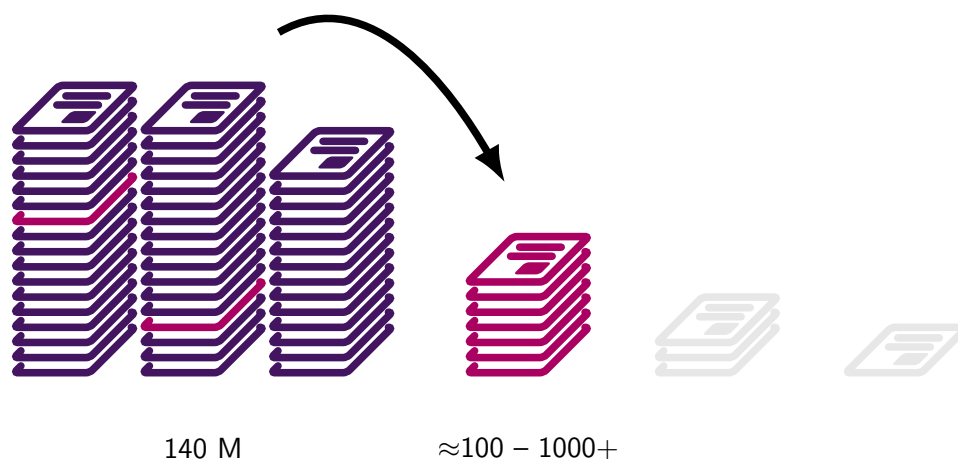


Figure 2.4: Selecting a set of documents

In the previous paragraph is described how to work through the set to finally select only the really relevant documents. This is “just” a lot of work. Selecting this workable set does not have to take a lot of time, but is the most difficult part of finding information from patents.

In practise it is very difficult to select all relevant documents (to have a 100% recall). Therefore a workable goal is to come as close as possible to a 100% recall with a workable amount of documents (high precision). This part will give an introduction into the most used methods to achieve this goal.

The available methods are determined by the information in the databases and by the functionalities of the current search engines to perform a search. These possibilities will be explained in the following paragraphs in relation to achieving the goal to select a workable set with the relevant documents.

2.5.1 Text search

The available search engines, like for example Espacenet or Google Patents, allow the search for words in the whole text of the patent documents. The use of this so called **full-text** search allows to select documents whereby words can be used to describe the relevant features.

It is normally not possible to describe concepts, but parts or materials can be described using words. Care has to be taken of the possible synonyms of the words. It is for example not uncommon that in the chemical field, where compounds are normally described in a standardised way, up to 10 or 20 synonyms are used for one compound.

Patents are published in many languages and therefore potentially also have to be searched using words of the different languages. In Espacenet only the three official languages of the EPO can be used to search. In Google Patents also other languages can be used. To relief the searcher for finding synonyms in the different languages also automatic translated texts in English are used in several search databases.

Experience with full-text search shows:

- Certain relevant features can be properly described using words, others not. Parts, materials or compounds can often be described properly, but relations between these are often not possible to describe.

Also not all languages have words for certain features. Often words for a feature exist in one language, but the same feature is described using multiple words in another language.

- The words and phrases used in patent documents are often more descriptive instead of specific to have a broad scope of meaning. Therefore it can be difficult to find the proper words for searching.
- To come close to a 100% recall all synonyms in the different languages have to be used. This is often not easy and requires knowledge and experience in a technical field.
- Achieving a high recall with only full-text search generally results in a very low precision. This means that an unworkable set of documents is selected.

2.5.2 Search with classification

Patent examiners have been searching for more than a century, mostly in a time when computers were not available to search. To enable searching in this time of only paper documentation, patent classifications have been developed. The goal of these classifications is to form sets of documents (with a specific classification code) that come close to the 100% recall necessary for search reports for patent applications and at the same time have a high precision. This classification is still very useful and is also used extensively to perform searches today.

The classification systems are thus tuned to the searches performed at patent offices. To have these classifications tuned to the searches, the same persons who search (the **examiners**) also build and maintain the classification systems and perform the classification of documents.

Many patent offices have developed their own classification systems. Some standardisation has occurred since the International Patent Classification (IPC) was created. One of the most widely used classifications next to the IPC is the Cooperative Patent Classification (CPC). In **chapter 3** the characteristics of the different systems is described.

Using the correct classification code for your search enables a high recall and a high precision. This is therefore a preferred method to select a workable set. However, attention has to go to finding the correct classification code, because not selecting the correct code results generally in a recall of zero.

Finding the correct code requires both knowledge of the technical field and of the classification codes and how they are used for classification. A general knowledge of the classification is given in **chapter 3** and is recommended for reading.

With classification the selection of a set is the same as:

selecting the correct classification code.

2.5.3 Specialised databases for specific technical fields

For certain technical fields the use of full-text or classification is not sufficient to perform a search. Specialized search engines and databases exist for these technical fields.

For example in the field of chemistry are search engines and databases where a chemical structure can be searched.

In for example the database of chemical abstracts of CAS sequences can be searched.

2.5.4 Queries in search engines

Most of the available search engines can combine different queries in a boolean way. A boolean combination means that a logical **AND** or **OR** can be used to build a query. With an **AND** the result can be limited to a set whereby both queries should be present. With an **OR** several alternatives or synonyms can be combined.

Thus a set can also be selected by for example combining a classification code and words. Thereby precision is increased over a pure classification search.

See the manuals and help of the search engines for the possibilities (see also section B.2).

2.5.5 Ranking

Some search engines perform a google style ranking to the results, whereby the highest ranking results are displayed first. This is only useful if you quickly want some results, but is not useful for a complete result because still all documents have to be viewed.

More advanced ranking such as for example faceted search (see wikipedia) is at this moment not available. Something similar can be achieved by repeating boolean queries, but this is not very friendly to perform.

2.5.6 Cited and citing documents

The information of search reports of the patent applications is largely available in the databases of the various search engines. This information is a valuable source for relevant documents:

The search reports of patent applications contain relevant documents for the inventions in those applications.

You should therefore include the cited documents of already found relevant documents into your selection and they particularly should be checked for relevance.

In several search engines the documents that have a citation to a particular document are also available. You should include these citing documents to a relevant document into your selection for the same reason that the cited documents are included.

Apart from the relevance of these cited and citing documents, they can also give hints to make new selections. Unknown relevant classification codes or words can be derived from these documents.

2.6 When to stop?

The question when to stop your search can be answered when the following question can be answered:

Did you select all relevant documents?

This question can only be answered with uncertainty. In practise it is not possible to check that you have selected all relevant documents (recall = 100%). Instead some indications can be used to answer the question.

- If you have enough knowledge of the classification and technology of a certain technical field (similar to a patent examiner) then you are able to select one or a limited number a classification codes, whereby you have a high certainty that most relevant documents will be selected. Selecting a set with these classification codes and working through this set is then sufficient for the search. The search can then be stopped after this. This method is therefore the most simple.
- The set you have selected should return a significant number of relevant or closely related documents. If this is not the case, then you have probably selected a set without relevant documents (recall is low).
- When looking at cited and citing documents of the really relevant documents does not retrieve new relevant documents or technical fields, then this is an indication that most relevant documents have been found.

If you come to the conclusion that your search is not yet complete enough, then a new selection has to be made. The information from the previous results can be used for this. For example new classification codes found on relevant documents can be used.

Chapter 3

Classification

3.1 Introduction

Using the classification systems for searching is often the most useful method. The correct selection of classification codes requires knowledge of both the classification systems and their application in a specific technical field. However, this chapter only provides an introduction into the classification systems. The application in a specific field requires mostly search experience in the specific field.

3.2 Classification types

The classification systems used for patent documents have already a long history. This has resulted in different, diverse and similar systems. Although most classification systems started independently and differently from each other, the trend is to come to more similar or equal systems. Cooperation between the patent offices is the driver for this.

Most classifications have an hierarchical structure, whereby subdivisions describe increasingly more specific details. Another often used structure is the use of a list of characterizations of certain aspects as it is used in for example deep indexing. In practise the current classification systems are based on one of these structures, but at the same time also use the other structure.

The most well known classification is the International Patent Classification (IPC) used by all the members of the [WIPO](#). This is an hierarchical classification system. An example of deep indexing is the [F-term](#) (File forming term) classification system used by the Japan Patent Office ([JPO](#)).

The classification systems using these two structures are further described in the following paragraphs.

3.2.1 IPC types

The IPC is the classification system of the WIPO and agreed to by its members. Every patent document published by a member has at least one IPC classification code.

Several classification systems are based on the IPC. This means that these classification systems have the same classification codes as the IPC with further subdivisions. These further subdivisions exist to make searching more efficient.

Well known classification systems based on the IPC are:

- Cooperative Patent Classification (CPC) used and maintained by the EPO and USPTO and also used by patent offices in other countries.
- File Index (FI) used by the JPO.
- Deutsche Klassifikation (DEKLA) used by the German patent office (DPMA).

As a hierarchical classification system the IPC type of classification systems require at least one classification code. A given code should be as detailed as possible. This means that a code that is on the lowest level possible should be assigned to a document. Multiple codes can be assigned to a single document, but the rules for assignment are not completely consistent between the different classification systems.

The IPC has eight sections:

- A. Human Necessities
- B. Performing Operations, Transporting
- C. Chemistry, Metallurgy
- D. Textiles, Paper
- E. Fixed Constructions
- F. Mechanical Engineering, Lighting, Heating, Weapons
- G. Physics
- H. Electricity

These eight sections are further divided into:

- Class
 - Subclass
 - * Group
 - Main group or subgroups

As an example a classification code for a clothes peg with pivoting members: D06F55/02. This code consists of the parts:

Section	Class	Subclass	Group	Subgroup
D	06	F	55	02

The hierarchical structure with only the text of the specific headings of this example is:

Section D:

Textiles, Paper

Class 06:

TREATMENT OF TEXTILES OR THE LIKE;
LAUNDERING; FLEXIBLE MATERIALS NOT
OTHERWISE PROVIDED FOR

Subclass F:

LAUNDERING, DRYING, IRONING,
PRESSING OR FOLDING TEXTILE
ARTICLES

Group 55:

Clothes pegs

Subgroup 02:

with pivoted
clamping
members

To have a better impression of the hierarchical structure see the complete list of the classification of D06F in section C.2.

In section 3.3 is explained how the documents are classified. This knowledge of classification is necessary to be able to select the proper classification codes.

3.2.2 Indexing, deep indexing

Indexing classification systems will classify multiple aspects that are disclosed in a document. The multiple aspects that are used are for example features of a solution, application and problem. A single document has therefore multiple index classification codes.

The idea behind indexing classifications is that the contents of a document can be accurately defined by the multiple aspects and thereby also easily retrieved.

Although the CPC is a hierarchical classification system based on the IPC, some parts of the CPC also have an additional indexing classification system. This shows that a classification system does not have to be a pure hierarchical or a pure indexing system. As an example see the additional indexing codes (D06F2100 code series) in the D06F CPC in [section C.2](#).

The JPO uses both the FI a hierarchical system and the F-term system, a pure indexing system. The F-term system is a deep indexing classification system: multiple aspects are completely classified.

For clothes pegs the correct F-term is 4L027. However this F-term is empty and not used. A detailed scheme for clothes pegs exists in the FI, which is probably the reason why an F-term scheme for clothes pegs is not necessary.

For the technically neighbouring field for washing and drying machines a detailed F-term scheme exists. In [section C.1](#) this F-term scheme 3B168 can be seen. In this example multiple aspects can be classified:

- AA type of washer and dryer
- AB method of washer and dryer
- AC types of washer and dryer for businesses
- AD clothes
- AE description of drawings
- BA purpose
- CE rotor, churning wing
- FA detergent, solvent and medicine
- JM features of control
- WA instrument for wash and a wash auxiliary implement
- WB putting-in, taking-out and a carrying means of the washing

A document with a washing machine invention will get one or multiple classification codes from multiple aspects:

- characteristics of the type of washing machine and the process in the A aspects,
- purpose or problem solved in the B aspect,

- extra features in the C, F, J and W aspects if applicable.

A set of documents can be selected by combining the different relevant F-terms in a query. With this deep indexing it is thus necessary to classify all aspects, so that a good recall is possible. The aspects chosen in the classification scheme will have a big influence on the precision and recall. Also this scheme is built for examiners at the patent office and might therefore not fit properly on a research question.

An example of a commercial index classification is the Derwent manual codes classification system that is available in the Derwent World Patent Index (see website: [clarivate](http://clarivate.com)). This is a proprietary classification system for searching in their patent database.

3.3 Characteristics

3.3.1 Introduction

To be able to choose the correct classification code and to be able to choose which classification system to use, the characteristics of the systems should be sufficiently clear. This part aims to make the most important characteristics clear.

The available databases have a limited number of classification systems available. The most used classifications systems are the IPC and the CPC. Therefore these two are compared here, with some small excursions to some other systems.

3.3.2 Scope of classified documents

All the members of the [WIPO](http://www.wipo.int) have to classify their patent publications with the IPC. This means that practically every patent publication has an IPC classification code.

Except that the IPC was introduced in the 1970's. Documents published before this introduction could therefore not be published with an IPC code. In some databases, for example Espacenet, this is solved by assigning older documents an IPC code based on the available CPC codes on the document.

The [EPO](http://www.epo.org) and [USPTO](http://www.uspto.gov) only classify the documents from the most important countries with CPC codes. Documents in a language that is not an official language at the offices are nowadays not classified by these offices. For example documents in the Japanese language (both JP and WO) do not get CPC codes. Although not every document is classified with a CPC code, the number of documents with a CPC code is still huge. A quick check at the moment of writing reveals:

55 million of the total of 158 million documents in the database of the EPO have a CPC code assigned by the EPO or USPTO. A total of 70 million documents have a CPC code if the other countries that assign CPC codes are included. Compare this to the almost 37 million documents that have originally received an IPC code.

Numbers for other classification schemes: almost 16 million documents have an F-term, almost 18 million documents have an FI code. For an overview of the database at the DPMA see: [data coverage Depatisnet](#).

Several countries (for example China and Korea) now also assign CPC codes to their published documents. It can therefore be expected that the coverage by the CPC will increase.

3.3.3 What is classified and how?

In both the IPC and CPC the invention is always classified. This means that a document has at least 1 classification code. It is also possible to classify additional information useful for searching. Thus multiple classification codes on a document are possible.

Generally the most detailed (lowest in the hierarchy) classification code is used. Another often used rule is that the first correct place in the classification scheme is used for the classification. But there are lots of exceptions. See the notes in the classification scheme and the CPC definitions for all the exceptions.

A very detailed guide on how to use the IPC can be found in the [Guide to the International Patent Classification \(2024\)](#). Most of what is written herein is also applicable to the CPC. This is not a document that can be read easily, so be warned.

The guide discloses the general rules. How in a specific technical field is classified with the CPC can be different than how generally is classified. The information how in a specific technical field is classified can be retrieved from the notes written in the classification scheme and from the definitions. See for example the definitions of D06F in [section C.3](#).

The meaning of a group is often further explained in the definitions. If for example the difference between clothes pegs (D06F55/00) and clothes pegs with pivoted clamping members (D06F55/02) is not clear, the pictures in the definitions under these headings clarify this (see page 121 of the definitions in [section C.3](#)).

The CPC has more subgroups (see for example the parts in curly braces in [section C.2](#)) and therefore the size of a selection can be smaller compared to using IPC codes. This will normally result in a higher precision.

Apart from more subgroups, the CPC has also extra additional codes (the 2000 range in subgroups). These additional codes are used in a variety of ways such as index or further subdivisions. A warning for this: additional codes are often not mandatory and thus may not be complete. Check what is written in the notes and definitions.

3.3.4 Who is classifying and when?

The IPC codes are assigned to a document, that will be published, by the examiner working at the specific patent office. Although effort is made for a consistent classification, it can be expected that there is some variety in the codes given by the examiners from the different offices. This can be seen by comparing for example the IPC codes with CPC codes on a document or comparing the IPC codes on the documents of the different countries in a patent family.

The CPC codes are assigned by examiners at the EPO or USPTO. These examiners work in a specialised technical field where a limited number of classifiers are active. This results in better consistency than the consistency with the IPC codes.

The IPC codes are only assigned when the document is published and are not updated.

The CPC codes assigned to documents are updated when an error is discovered or when the classification scheme is modified. The codes assigned to documents are therefore normally always up to date, whereby exceptions are mentioned in the classification scheme.

For the Dekla and the FI and F-term the situation is similar to the CPC.

3.3.5 Some guides

Experience will help to use the classifications correctly. So do not despair if the first time is not right.

Check by looking at the selected documents whether you have understood the classification correctly. Do not waste time looking through a wrong set!

If you can not find what you are looking for, you have made the wrong selection. Yes, prior *state of the art* exists for everything (unless you have made a world changing discovery).

Appendix A

Glossary

B

BOIP

Benelux Office for Intellectual Property. The Benelux Office for Intellectual Property (dutch BBIE: Benelux-Bureau voor de Intellectuele Eigendom, french: Office Benelux de la Propriété intellectuelle) registers trademarks and designs for the Benelux. 26

C

CPC

The Cooperative Patent Classification is a classification system developed by the EPO and USPTO and also used in other countries. The CPC is based on the IPC with further subdivisions. 13, 17

D

DEKLA

Deutsche Klassifikation. The German classification is based on the IPC and used and maintained by the DPMA. 17

DPMA

Deutsches Patent- und Markenamt. The German Patent and Trademark Office is tasked with the granting of patents and trademarks for Germany. 17, 21, 26

E

EPC

European Patent Convention. A multilateral treaty to provide the legal system for granting European patents. Next to articles and rules for obtaining a patent, it also institutes the European Patent Organisation. In German: EPÜ, French: CBE. The European Patent Office is tasked with the granting of the European patents. 24

EPO

European Patent Office. The European Patent Office is tasked with the granting of the European patents according the EPC. Main seat in Munich with dependancies in Rijswijk, Berlin and Vienna. 17, 20, 26

EUIPO

European Union Intellectual Property Office. The European Union Intellectual Property Office registers trademarks and designs for the EU. 26

examiner

The person working at a patent office, who will do the substantive examination (search report and grant) of a patent application. 13

F**F-term**

File forming term is an indexing classification system used in Japan. 16, 19

FI

File Index is a classification system based on the IPC and is used in Japan. 17, 19

full-text

A full-text database contains the complete text of the documents, not just bibliographic data or abstracts. 11

I**IPC**

The International Patent Classification is a classification system that is used in all countries. Every publication of a patent application has an IPC classification code. 13, 16, 17

J

JPO

Japan Patent Office. The Japan Patent Office is tasked with the granting of patents and trademarks for Japan. 16, 17, 19, 26

O

Octrooiencentrum Nederland

The Netherlands Patent Office is the patent office of the Netherlands. The Netherlands Patent Office is a department of the Netherlands Enterprise Agency, an agency of the Ministry of Economic Affairs and Climate Policy. The Netherlands Patent Office grants patents in the Netherlands and deals with European patents validated in the Netherlands. 26

S

search report

The search report is prepared by the patent office where the patent application has been filed. It is used to assess novelty and inventive step during the examination of the patent. It therefore contains the most relevant documents that are used in the examination. 12, 14

state of the art

The state of the art is formed by everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the patent application 22

U

USPTO

United States Patent and Trademark Office. The United States Patent and Trademark Office is tasked with the granting of patents and trademarks for the United States of America. 17, 20, 26

W

WIPO

World Intellectual Property Organisation. The World Intellectual Property Organization is one of the 15 specialized agencies of the United Nations (UN). WIPO administers 26 international treaties that concern a wide variety of intellectual property issues, ranging from the protection of audiovisual works to establishing international patent classification. WIPO currently has 193 member states and is headquartered in Geneva, Switzerland. 16, 20, 26

Appendix B

Links

B.1 National and international IP offices

Netherlands patent office (Octrooi Centrum Nederland):

<https://www.rvo.nl/onderwerpen/innovatief-ondernemen/octrooien-ofwel-patenten>

Benelux Office for Intellectual Property (BOIP):

<https://www.boip.int/>

European Patent Office (EPO):

<https://www.epo.org/>

European Union Intellectual Property Office (EUIPO):

<https://www.euipo.europa.eu/>

World Intellectual Property Organisation (WIPO):

<https://www.wipo.int/>

German patent office (DPMA):

<https://www.dpma.de/>

United States Patents and Trademark Office (USPTO):

<https://www.uspto.gov/>

Japan Patent Office (JPO):

<https://www.jpo.go.jp/e/>

B.2 IP databases

Espacenet:

<https://worldwide.espacenet.com/patent/>

Espacenet pocket guide:

<https://www.epo.org/espacenet-pocket-guide>

Manual Espacenet (Dutch):
https://www.rvo.nl/sites/default/files/2021/03/Handleiding%20Espacenet_februari2021.pdf

European Patent Register:
<https://register.epo.org/>

European Patent Bulletin:
<https://data.epo.org/expert-services/index.html>

Google patents:
<https://patents.google.com/>

Depatisnet (DPMA):
<https://depatisnet.dpma.de/DepatisNet/depatisnet>

Patentscope:
<https://patentscope.wipo.int/>

The lens:
<https://www.lens.org/>

Trademark view and Design view:
<https://www.tmdn.org/>

EUIPO register (eSearch plus):
<https://euipo.europa.eu/eSearch/>

BOIP trademark register:
<https://www.boip.int/en/trademarks-register>

BOIP design register:
<https://www.boip.int/en/designs-register>

Register of the Netherlands patent office:
<https://mijnnoctrooi.rvo.nl/fo-eregister-view/>

Register of the German patent office (DPMA register):
<https://register.dpma.de/DPMAREGISTER/pat/basis>

UK Intellectual Property Office, online patent information and document inspection service:
<https://www.ipo.gov.uk/p-ipsum.htm>

Japan platform for patent information:
<https://www.j-platpat.inpit.go.jp/>

B.3 The patent classification schemes

CPC classification scheme at the USPTO (US patent and trademark office):
<https://www.uspto.gov/web/patents/classification/cpc/html/cpc.html>

CPC classification scheme in table to download scheme and definitions:

[https://www.cooperativepatentclassification.org/cpcSchemeAndDefinitions/
table](https://www.cooperativepatentclassification.org/cpcSchemeAndDefinitions/table)

Appendix C

Documents

C.1 F-term 3B168

Theme code	3B168
Descriptions	ACCESSORY OF WASHING/DRYING MACHINE, COMMERCIAL WASHING/DRYING MACHINE, OTHER WASHING/DRYING MACHINE
FI coverage	D06F1/00-19/00;27/00-31/00;35/00-35/00@Z;41/00- 51/02;58/00-58/00@Z;58/10-58/18@Z; 59/00-60/00

AA00 TYPE OF WASHER AND DRYER

- AA01 . Drum typed washer
 - AA02 . . With drying function
 - AA04 . . Tilted rotation drum
 - AA05 . . Horizontal rotation drum
 - * AA06 . . . Top-loading
- AA11 . Vertical washer
 - AA12 . . With drying function
 - AA13 . . Dryer separated from the washer (also classified in AA24)
 - AA15 . . With blade
 - AA16 . . Partial washing
- AA21 . Single-tub with single function
 - AA22 . . Washer (including washer only for washing or rinse)
 - AA23 . . Dewatering machine
 - AA24 . . Dryer

AA00	TYPE OF WASHER AND DRYER
------	--------------------------

- AA31 . Multi-tub (drum also means tub, not including impounding tub)
 - AA32 . . Double-tub
 - * AA33 . . . Combination of washing tub and dewatering tub
 - * AA34 . . . Combination of washing and dewatering tub, drying tub
 - AA38 . Combination of functions and productions other than washer and dryer
 - AA40 . Others
-

AB00	METHOD OF WASHER AND DRYER
------	----------------------------

- AB01 . Washing and rinsing method
 - AB02 . . Bubble cleaning
 - AB03 . . Air bubble
 - AB04 . . Super sound
 - AB05 . . Water-jet
 - AB06 . . Shower
- AB11 . Dewatering method (excluding centrifugal dewatering)
 - AB12 . . Press, squeezing roller
- AB21 . Drying method
 - AB22 . . Combined use of heating and dehumidification
 - * AB23 . . . Heat pump
 - AB24 . . Only using heat
 - AB25 . . Only using dehumidification
 - AB27 . . Only using blowing
 - AB29 . . Drying with exhausting (exhausting to the external)
 - AB30 . . Circulation drying, interior air recirculation
- AB31 . Dehumidification method (using dehumidification agents etc.)
 - AB32 . . Use of cooling medium
 - AB33 . . Water cooling
 - AB34 . . Air cooling

AB00	METHOD OF WASHER AND DRYER
	<ul style="list-style-type: none"> • AB41 . Additional function <ul style="list-style-type: none"> – AB42 . . Sterilization, antibacterial, odor eliminating * AB43 . . . Dedicated devices • AB50 . Others
AC00	TYPES OF WASHER AND DRYER (FOR BUSINESSES ETC.)
	<ul style="list-style-type: none"> • AC01 . Dry cleaning <ul style="list-style-type: none"> – AC02 . . Solvent circulation, collection – AC03 . . Stain removal • AC11 . Drying chamber <ul style="list-style-type: none"> – AC12 . . Bathroom – AC13 . . Room, closet – AC14 . . Drawer typed closet, large size cabinet – AC15 . . Small size cabinet – AC16 . . Folding type • AC21 . Coin laundry • AC22 . Cleaning plant • AC23 . Continuous and multi-step drum • AC24 . Tunnel drum • AC25 . Movable type (such as laundry vehicle etc.) • AC26 . Portable, floor types (such as portable washer etc.) • AC27 . Tub changing its position • AC30 . Others
AD00	CLOTHES (WASHED CLOTHES AND DRIED CLOTHES)
	<ul style="list-style-type: none"> • AD01 . Type of clothes in the term of form <ul style="list-style-type: none"> – AD02 . . Japanese-style bedding – AD03 . . Shoes – AD04 . . Socks • AD06 . Size and quantity (largeness and thickness etc.) • AD07 . Type of clothes in the term of quality (such as fragile materials etc.) • AD08 . States of the clothes (tough stains etc.) • AD10 . Others

AE00	DESCRIPTION OF THE DRAWING
	<ul style="list-style-type: none"> • AE01 . Drawing of the component (subdivisional places under CE) • AE02 . Drawing of partial enlargement (subdivisional places under CE) • AE03 . Panel surface, displaying surface • AE04 . Flow chart • AE05 . Block line • AE06 . Diagram of electrical circuit, wire connection • AE07 . Diagram of fluidic circuit, wire connection • AE11 . Graphs and sheet indicating characteristic and advantage <ul style="list-style-type: none"> – AE12 . . Time chart etc. – AE13 . . Angle and revolution – AE14 . . Electric and magnetic • AE20 . Others

BA00	PURPOSE
	<ul style="list-style-type: none"> • BA01 . Prevention and measurement against accidents <ul style="list-style-type: none"> – BA02 . . Bodily injury <ul style="list-style-type: none"> * BA03 . . . Injury <ul style="list-style-type: none"> · BA04 Burn injury * BA05 . . . Electrification <ul style="list-style-type: none"> · BA06 Static electricity – BA08 . . Damage of clothes <ul style="list-style-type: none"> * BA09 . . . Tangle, twist, shrinkage, crease of clothes * BA10 . . . Re-contamination, color transfer, color change from other clothes or washing agents, contamination of original sources – BA12 . . Mechanical or electrical damages and trouble <ul style="list-style-type: none"> * BA13 . . . Overload, overheat, burning damage * BA14 . . . Electric leakage, short-circuit, loose connection * BA15 . . . Unbalance * BA16 . . . Incursion of foreign substance – BA18 . . Power failure – BA19 . . Freezing

BA00	PURPOSE
------	---------

- BA22 . . Environment and sanitation
 - BA23 . . . Noise (noise reduction, noise filter, noise prevention etc.)
 - BA24 . . . Vibration
 - BA25 . . . Odor, vapor of solvent
 - BA26 . . . Contamination of drainage water and waste fluid
- BA28 . . Measurement against the incorrect operation and incorrect move
- BA29 . . Theft, unauthorized use
- BA32 . . Trouble of water and liquid
 - BA33 . . . Water tight (drip-proof, water-proof etc.)
 - BA34 . . . Abnormal states such as stoppage, water supply and drainage, overflow water
 - BA35 . . . Flying water
- BA37 . . Trouble of air
 - BA38 . . . Abnormal states such as stoppage, water supply and supply and drainage systems
- BA40 . . Improvement and measurement of alert
- BA41 . Improvement of efficiency and quality
 - BA42 . . Save of water and solvent
 - BA43 . . Reduction of energy consumption, and power transmission loss
 - * BA44 . . . Heat recovery and reuse of wasted heat
 - BA45 . . Brief of required hours of processes
 - BA47 . . Automation and energy saving
 - BA48 . . Improvement of operating performance
 - BA49 . . Improvement of visibility
 - BA50 . . Quality of appearance, design
 - BA52 . . Improvement of washing performance
 - BA53 . . Improvement of rinsing performance
 - BA54 . . Improvement of dewatering performance
 - BA55 . . Improvement of washing performance
 - BA56 . . Improvement of dust removing performance
 - BA57 . . Reduction of foaming, prevention of effect by foaming
 - BA58 . . Facilitation of foaming
 - BA59 . . Adaptation to the user's preferences

BA00	PURPOSE
	<ul style="list-style-type: none"> • BA62 . . Improvement of quality of finished clothes <ul style="list-style-type: none"> – BA63 . . . Aroma – BA64 . . . Mangle – BA65 . . . Measurement against allergy • BA69 . . Improvement and measurement of alarm <ul style="list-style-type: none"> – BA70 . . . Time alert • BA72 . . Maintenance <ul style="list-style-type: none"> – BA73 . . . Automatic cleaning of components (including operation by users) – BA74 Tub cleaning – BA75 . . . Drying of component and tub – BA76 . . . Self-diagnosis • BA78 . . Sterilization, antibacterial, odor eliminating • BA82 . . Improvement of reliability, accuracy, durability • BA83 . . Improvement of material, reduction of components, simplification of construction • BA84 . . Downsizing, space saving, arrangement of components inside the machines • BA85 . . Processing and molding methods • BA86 . . Improvement of assembly, inspection, diagnosis of failure, disassembly • BA87 . . Improvement of carriage and packaging • BA88 . . Installing and mounting • BA89 . . Storage • BA91 . Cooperation with network • BA92 . Cooperation with the other apparatuses • BA99 . Others

CE00	ROTOR, CHURNING WING
	<ul style="list-style-type: none"> • CE01 . Structure and form <ul style="list-style-type: none"> – CE02 . . Pump out vane • CE03 . Spiral <ul style="list-style-type: none"> – CE04 . . A wing hole vacancy, a hollow with a cleaning window – CE05 . . Dimensional ratio, dimension, size and curvature

CE00	ROTOR, CHURNING WING
	<ul style="list-style-type: none"> • CE11 . Attachment of wings to the axis • CE12 . Component detached and attached on wings • CE13 . Attached in addition to the central bottom of a tub • CE14 . Multiple wings (the subject matter which rotates independently) • CE20 . Others
FA00	DETERGENT, SOLVENT AND MEDICINE
	<ul style="list-style-type: none"> • FA01 . Water-soluble detergent • FA02 . Organic solvent and inorganic solvent • FA03 . Mixture and switching • FA04 . Strengthening of detergent and solvent and additive • FA05 . Bleach • FA06 . Finishing agent, softening agent, spice, etc. • FA07 . Drying material • FA11 . Shape and form <ul style="list-style-type: none"> – FA12 . . Liquid – FA13 . . Solid <ul style="list-style-type: none"> * FA14 . . . Powder – FA16 . . Package type – FA18 . . Gas <ul style="list-style-type: none"> * FA19 . . . Steam • FA20 . Others
JM00	FEATURES OF CONTROL
	<ul style="list-style-type: none"> • JM01 . Controlled system step, a rotation tub, the action of the drum, and an input • JM02 . Detection objects and a detection means • JM03 . Control • JM04 . Cooperation with the other apparatuses • JM10 . Others

WA00	INSTRUMENT FOR WASH AND A WASH AUXILIARY IMPLEMENT
	<ul style="list-style-type: none"> • WA01 . Wash container, a laundry basket, a bag • WA02 . Restroom tools • WA03 . Wash net, a wash sheet, a drying bag • WA04 . Waste picking net • WA05 . Roller for dewatering and a roller for extending • WA06 . Wash ball and a corded object • WA07 . Measuring cup • WA08 . Hanger and a drying place – WA09 . . Doll • WA11 . Using form – WA12 . . Used in a tub <ul style="list-style-type: none"> * WA13 . . . Floating in a tub * WA14 . . . Used by attaching to wings – WA16 . . Used by attaching to places other than the tub – WA18 . . Used independently • WA20 . Others
WB00	PUTTING-IN, TAKING-OUT AND A CARRYING MEANS OF THE WASHING
	<ul style="list-style-type: none"> • WB01 . Tub changing its position • WB02 . Chute • WB03 . Piston • WB04 . Jet water • WB05 . Dependent on a hand tool • WB11 . Conveyor system – WB12 . . Conveyance screw system – WB13 . . Conveyor belt – WB14 . . Hanging conveyor (hanger conveyor) – WB15 . . Roller conveyer • WB20 . Others

C.2 CPC scheme D06F

CPC COOPERATIVE PATENT CLASSIFICATION

D TEXTILES; PAPER

TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D06 TREATMENT OF TEXTILES OR THE LIKE; LAUNDERING; FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D06F LAUNDERING, DRYING, IRONING, PRESSING OR FOLDING TEXTILE ARTICLES

NOTES

1. This subclass covers:
 - domestic or laundry dry-cleaning apparatus using volatile solvents;
 - domestic, laundry, or tailors' ironing or other hot-pressing of clothes, linen, or other textile articles.
2. This subclass does not cover:
 - apparatus for wringing, washing, dry-cleaning, ironing, or other hot-pressing of textiles in manufacturing operations, which is covered by subclasses [D06B](#), [D06C](#).
 - treatment of textiles by purely chemical means, which is covered by subclasses [D06L](#), [D06M](#).

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Washing; Rinsing; Dry-cleaning

- 1/00 Washing receptacles (of washing machines [D06F 37/00](#), [D06F 39/00](#))**
- 1/02 . Wash-tubs; Supports therefor
 - 1/04 . . the tub walls or bottom having corrugations
 - 1/06 . Wash-boiler receptacles
 - 1/08 . . with special means for water circulation by heat, e.g. fountain-washers
 - 1/10 . Covers; Handles
 - 1/12 . Racks or other rigid open containers of skeleton or like apertured construction supporting clothes in washing receptacles
- 3/00 Hand rubbing apparatus ([corrugated tub-walls D06F 1/04](#))**
- 3/02 . Rubbing boards
 - 3/04 . Hand rubbers, e.g. gloves with corrugated surfaces
- 5/00 Hand implements for washing purposes, e.g. sticks ([hand rubbing appliances D06F 3/00](#))**
- 5/005 . {Receptacles for washing articles, e.g. hosiery, by shaking or squeezing}
 - 5/02 . Plungers, dollies, pounders, squeezers, or the like
 - 5/04 . . adapted for removable mounting on receptacles such as wash-tubs
 - 5/06 . Grippers
- 7/00 Washing devices adapted to be used independently of any particular receptacle, e.g. for removable mounting on wash-tubs, bath-tubs, or the like**
- 7/02 . of the rotary-impeller type
 - 7/04 . of the vibrator type
 - 7/06 . agitating the washing liquid by air
- 9/00 Brushing-type washing machines**

- 11/00 Washing machines using rollers, e.g. of the mangle type**
- 13/00 Washing machines having receptacles, stationary for washing purposes, with agitators therein contacting the articles being washed ([plungers or the like adapted for removable mounting on receptacles D06F 5/04](#))**
- 13/02 . wherein the agitator has an oscillatory rotary motion only
 - 13/04 . wherein the agitator has an axial motion only
 - 13/06 . wherein the agitator has both rotary, e.g. oscillating rotary, motion and axial motion
 - 13/08 . wherein the agitator has a gyratory or orbital motion
- 15/00 Washing machines having beating, rubbing or squeezing means in receptacles stationary for washing purposes ([plungers or the like adapted for removable mounting on receptacles D06F 5/04](#); [mangle-type washing machines D06F 11/00](#))**
- 15/02 . wherein the articles being washed are squeezed by a flexible diaphragm or bag
- 17/00 Washing machines having receptacles, stationary for washing purposes, wherein the washing action is effected solely by circulation or agitation of the washing liquid**
- 17/02 . by pumps ([D06F 17/04 takes precedence](#))
 - 17/04 . solely by water jets
 - 17/06 . by rotary impellers
 - 17/08 . . Driving arrangements for the impeller
 - 17/10 . . Impellers
 - 17/12 . solely by gases, e.g. air or steam, introduced into the washing liquid

18/00	Washing machines having receptacles, stationary for washing purposes, and having further drying means (control of washing or of washing and drying D06F 33/00 , D06F 34/00 ; domestic laundry dryers D06F 58/00)	33/00	Control of operations performed in washing machines or washer-dryers (D06F 31/00 takes precedence; details of control systems therefor D06F 34/00 ; control of operations performed in domestic laundry dryers D06F 58/32)
19/00	Washing machines using vibrations for washing purposes		NOTE
21/00	Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement (with receptacles serving both for washing and centrifugally separating water from the laundry D06F 23/00 , D06F 25/00 ; programme control aspects D06F 33/00)		In this group, it is mandatory to add the indexing codes of groups D06F 2101/00 - D06F 2105/00 .
21/02	. about a horizontal axis	33/04	. non-electrically
21/04	. . within an enclosing receptacle	33/06	. . substantially mechanically
21/06	. about a vertical axis	33/08	. . substantially hydraulically
21/08	. . within an enclosing receptacle	33/10	. . substantially pneumatically
21/10	. about an inclined axis	33/30	. Control of washing machines characterised by the purpose or target of the control (controlling processes of washer-dryers D06F 33/50)
21/12	. the receptacle having a wobbling motion		
21/14	. with rubbing or beating means not secured to, or forming part of, the receptacle	33/32	. . Control of operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry
23/00	Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and for centrifugally separating water from the laundry (with further drying means D06F 25/00 ; programme control aspects D06F 33/00)	33/34	. . . of water filling
23/02	. and rotating or oscillating about a horizontal axis	33/36	. . . of washing
23/025	. . {with a rotatable imperforate tub}	33/37	. . . of metering of detergents or additives
23/04	. and rotating or oscillating about a vertical axis	33/38	. . . of rinsing
23/06	. and rotating or oscillating about an inclined axis	33/40	. . . of centrifugal separation of water from the laundry
23/065	. . {with a rotatable imperforate tub}	33/42	. . . of draining
25/00	Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and for centrifugally separating water from the laundry and having further drying means, e.g. using hot air (control of washing or of washing and drying D06F 33/00 , D06F 34/00 ; domestic laundry dryers D06F 58/00)	33/43	. . Control of cleaning or disinfection of washing machine parts, e.g. of tubs
		33/44	. . Control of the operating time, e.g. reduction of overall operating time
		33/46	. . Control of the energy or water consumption
		33/47	. . Responding to irregular working conditions, e.g. malfunctioning of pumps (safety arrangements D06F 37/42)
		33/48	. . Preventing or reducing imbalance or noise
		33/50	. Control of washer-dryers characterised by the purpose or target of the control
		33/52	. . Control of the operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry
		33/54	. . . of water filling
		33/56	. . . of washing
		33/57	. . . of metering of detergents or additives
		33/58	. . . of rinsing
		33/60	. . . of centrifugal separation of water from the laundry
		33/62	. . . of draining
		33/63	. . . of air flow, e.g. blowing air during the washing process to prevent entanglement of the laundry
		33/64 Unheated air
		33/65	. . . of conditioning or finishing phases, e.g. for smoothing or removing creases
		33/68	. . . of the sequence of washing and drying operations
		33/69	. . Control of cleaning or disinfection of washer-dryer parts, e.g. of tubs
		33/70	. . Control of the operating time, e.g. reduction of overall operating time
		33/72	. . Control of the energy or water consumption
		33/74	. . Responding to irregular working conditions, e.g. malfunctioning of pumps (safety arrangements for washing machines D06F 37/42)
		33/76	. . Preventing or reducing imbalance or noise
27/00	Washing machines with receptacles moving bodily, e.g. reciprocating, swinging		
29/00	Combinations of a washing machine with other separate apparatus in a common frame or the like, e.g. with rinsing apparatus		
29/005	. {the other separate apparatus being a drying appliance}		
29/02	. with liquid-extracting apparatus (with roller wringer D06F 45/12)		
31/00	Washing installations comprising an assembly of several washing machines or washing units, e.g. continuous flow assemblies		
31/005	. {consisting of one or more rotating drums through which the laundry passes in a continuous flow}		

34/00 Details of control systems for washing machines, washer-dryers or laundry dryers**NOTE**

In this group, it is mandatory to add the indexing codes of groups [D06F 2101/00](#) - [D06F 2105/00](#).

- 34/04 . Signal transfer or data transmission arrangements
- 34/05 . . for wireless communication between components, e.g. for remote monitoring or control
- 34/06 . Timing arrangements
- 34/08 . Control circuits or arrangements thereof
- 34/10 . Power supply arrangements, e.g. stand-by circuits
- 34/14 . Arrangements for detecting or measuring specific parameters
 - 34/16 . . Imbalance
 - 34/18 . . Condition of the laundry, e.g. nature or weight
 - 34/20 . . Parameters relating to constructional components, e.g. door sensors
 - 34/22 . . Condition of the washing liquid, e.g. turbidity
 - 34/24 . . . Liquid temperature
 - 34/26 . . Condition of the drying air, e.g. air humidity or temperature
 - 34/28 . Arrangements for program selection, e.g. control panels therefor; Arrangements for indicating program parameters, e.g. the selected program or its progress
 - 34/30 . . characterised by mechanical features, e.g. buttons or rotary dials
 - 34/32 . . characterised by graphical features, e.g. touchscreens
 - 34/34 . . characterised by mounting or attachment features, e.g. detachable control panels or detachable display panels

35/00 Washing machines, apparatus, or methods not otherwise provided for

- 35/001 . {using ozone}
- 35/002 . {using bubbles}
- 35/003 . {using electrochemical cells}
- 35/004 . {using chlorine generators}
- 35/005 . {Methods for washing, rinsing or spin-drying}
- 35/006 . . {for washing or rinsing only}
- 35/007 . . {for spin-drying only}
- 35/008 . . {for disinfecting the tub or the drum}

37/00 Details specific to washing machines covered by groups [D06F 21/00](#) - [D06F 25/00](#)

- 37/02 . Rotary receptacles, e.g. drums
- 37/04 . . adapted for rotation or oscillation about a horizontal or inclined axis
- 37/06 . . . Ribs, lifters, or rubbing means forming part of the receptacle
- 37/065 {ribs or lifters having means for circulating the washing liquid}
- 37/08 . . . Partitions
- 37/10 . . . Doors; Securing means therefor
- 37/12 . . adapted for rotation or oscillation about a vertical axis
- 37/14 . . . Ribs or rubbing means forming part of the receptacle
- 37/145 {ribs or lifters having means for circulating the washing liquid}
- 37/16 . . . Partitions
- 37/18 . . . Doors or covers; Securing means therefor

- 37/20 . Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub or casing; Preventing or damping vibrations
- 37/206 . . {Mounting of motor}
- 37/22 . . in machines with a receptacle rotating or oscillating about a horizontal axis
- 37/225 . . . {Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets}
- 37/24 . . in machines with a receptacle rotating or oscillating about a vertical axis
- 37/245 . . . {Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets}
- 37/26 . Casings; Tubs
- 37/261 . . {Tubs made by a specially selected manufacturing process or characterised by their assembly from elements}
- 37/262 . . . {made of plastic material, e.g. by injection moulding}
- 37/263 . . . {assembled from at least two elements connected to each other; Connecting or sealing means therefor}
- 37/264 . . {Tubs provided with reinforcing structures, e.g. ribs, inserts, braces}
- 37/265 . . {Counterweights mounted to the tub; Mountings therefor}
- 37/266 . . {Gaskets mounted between tub and casing around the loading opening}
- 37/267 . . {Tubs specially adapted for mounting thereto components or devices not provided for in preceding subgroups ([D06F 37/206](#) takes precedence)}
- 37/268 . . . {for suspension devices}
- 37/269 . . . {for the bearing of the rotary receptacle}
- 37/28 . . Doors; Security means therefor
- 37/30 . Driving arrangements ([control circuits or arrangements D06F 34/08](#))
- 37/302 . . {Automatic drum positioning}
- 37/304 . . {Arrangements or adaptations of electric motors}
- 37/308 . . {Hydraulic or pneumatic speed control; Arrangements or adaptations of hydraulic or pneumatic motors}
- 37/32 . . for rotating the receptacle at one speed only ([D06F 37/304](#), [D06F 37/308](#) take precedence)
- 37/34 . . . in opposite directions, e.g. oscillating
- 37/36 . . for rotating the receptacle at more than one speed ([D06F 37/304](#), [D06F 37/308](#) take precedence)
- 37/38 . . . in opposite directions
- 37/40 . . for driving the receptacle and an agitator or impeller, e.g. alternatively ([D06F 37/304](#), [D06F 37/308](#) take precedence)
- 37/42 . Safety arrangements, e.g. for stopping rotation of the receptacle upon opening of the casing door

39/00 Details of washing machines not specific to a single type of machines covered by groups [D06F 9/00](#) - [D06F 27/00](#) ([control of washing machines D06F 33/00](#), [D06F 34/00](#))

- 39/001 . {Arrangements for transporting, moving, or setting washing machines; Protective arrangements for use during transport ([transport in general B65](#))}

- 39/006 . {Recovery arrangements, e.g. for the recovery of energy or water}
(Frozen)

WARNING

Group [D06F 39/006](#) is no longer used for the classification of documents as of January 1, 2024.

The content of this group is being reclassified into groups [D06F 39/20](#) and [D06F 39/30](#).

Groups [D06F 39/006](#), [D06F 39/20](#) and [D06F 39/30](#) should be considered in order to perform a complete search.

- 39/007 . {Arrangements of water softeners}
39/02 . Devices for adding soap or other washing agents
39/022 . . {in a liquid state ([D06F 39/024](#) takes precedence)}
39/024 . . {mounted on the agitator or the rotating drum; Free body dispensers}
39/026 . . {the powder or tablets being added directly, e.g. without the need of a flushing liquid}
39/028 . . {Arrangements for selectively supplying water to detergent compartments}
39/04 . Heating arrangements
39/06 . Arrangements for preventing or destroying scum
39/08 . Liquid supply or discharge arrangements (supply of soap or other washing agents [D06F 39/02](#))
39/081 . . {Safety arrangements for preventing water damage}
39/082 . . . {detecting faulty draining operations, e.g. filter blockage, faulty pump}
39/083 . . {Liquid discharge or recirculation arrangements}
39/085 . . . {Arrangements or adaptations of pumps}
39/086 . . . {Arrangements for avoiding detergent wastage in the discharge conduit}
39/087 . . {Water level measuring or regulating devices}
39/088 . . {Liquid supply arrangements}
39/10 . Filtering arrangements
39/12 . Casings; Tubs
39/125 . . {Supporting arrangements for the casing, e.g. rollers or legs}
39/14 . . Doors or covers; Securing means therefor
39/20 . Arrangements for water recovery

WARNING

Group [D06F 39/20](#) is incomplete pending reclassification of documents from group [D06F 39/006](#).

Groups [D06F 39/006](#) and [D06F 39/20](#) should be considered in order to perform a complete search.

- 39/30 . Arrangements for energy recovery

WARNING

Group [D06F 39/30](#) is incomplete pending reclassification of documents from group [D06F 39/006](#).

Groups [D06F 39/006](#) and [D06F 39/30](#) should be considered in order to perform a complete search.

- 39/40 . Steam generating arrangements

41/00 Rinsing apparatus**43/00 Dry-cleaning apparatus (or methods) using volatile solvents ([D06F 9/00](#) - [D06F 41/00](#) take precedence)**

- 43/002 . {Spotting apparatus}
43/005 . {Solvent condition control devices, e.g. humidity content}
43/007 . {Dry cleaning methods}
43/02 . having one rotary cleaning receptacle only
43/04 . having more than one rotary cleaning receptacle
43/06 . wherein the articles to be cleaned are passed through a cleaning chamber or bath
43/08 . Associated apparatus for handling and recovering the solvents
43/081 . . {Reclaiming or recovering the solvent from a mixture of solvent and contaminants, e.g. by distilling}
43/083 . . . {Condensing arrangements}
43/085 . . . {Filtering arrangements; Filter cleaning; Filter-aid powder dispensers}
43/086 . . {Recovering the solvent from the drying air current}
43/088 . . . {Condensing arrangements}

Expelling water from the linen; Smoothing by cold rolling**45/00 Wringing machines with two or more co-operating rollers; Similar cold-smoothing apparatus**

- 45/02 . wherein the pressure is transmitted by spring means
45/04 . . with hand-operated quick-release means
45/06 . . with automatically-operated quick-release means
45/08 . wherein the pressure is applied by fluid means
45/10 . with three or more co-operating rollers
45/12 . combined with washing machines
45/14 . with means for removable attachment to washing machines, tables or other supports
45/16 . Details
45/18 . . Driving or control arrangements for rotation of the rollers
45/20 . . Toggle or other lever means for transmitting pressure to the rollers
45/22 . . Rollers
45/24 . . Frames guiding or housing the roller shafts; Stands for supporting the roller framework
45/26 . . Draining boards; Feed or discharge boards; Stripping means
45/28 . . Belt arrangements for guiding the linen between the rollers

47/00 Apparatus of the press type for expelling water from the linen

- 47/02 . by a mechanically-actuated ram
47/04 . by a fluid-actuated ram
47/06 . by a flexible diaphragm
47/08 . Covers; Securing means therefor

49/00 Domestic spin-dryers or similar spin-dryers not suitable for industrial use

- 49/003 . {Doors or covers; Safety arrangements}
49/006 . {Rinsing arrangements}
49/02 . Bowl construction
49/04 . Bowl drive
49/06 . Mountings, e.g. resilient mountings, for the bowl or casings; Preventing or damping vibrations
49/08 . Liquid discharge arrangements

51/00 Apparatus for expelling or draining water from the linen, not provided for in the preceding groups

51/02 . by twisting

Drying; Airing

53/00 Clothes-lines; Supports therefor (drying frames incorporating clothes-lines D06F 57/00)

53/005 . {Accessories, e.g. line cleaning devices, line protectors, clothes-pin holders}

53/02 . Clothes-lines

53/04 . Supports, e.g. poles, props for clothes-lines

53/045 . . {comprising means for storing the clothes-line}

55/00 Clothes-pegs

55/02 . with pivoted {independent} clamping members

57/00 Supporting means, other than simple clothes-lines, for linen or garments to be dried or aired (in combination with means for heating or positive air circulation D06F 58/00; adapted to retain the shape of particular articles being dried D06F 59/00)

57/02 . mounted on pillars, e.g. rotatably {(sockets or holders for poles or posts E04H 12/22)}

57/04 . . and having radial arms, e.g. collapsible

57/06 . comprising vertical members connected by horizontal bars

57/08 . Folding stands (D06F 57/06 takes precedence)

57/10 . . of the lazy-tongs type

57/12 . specially adapted for attachment to walls, ceilings, stoves, or other structures or objects

57/122 . . {for attachment by clamping between two retaining-planes}

57/125 . . {for attachment to, or close to, the ceiling}

57/127 . . {for attachment or suspension to central heating radiators}

58/00 Domestic laundry dryers

NOTE

In this group, it is mandatory to add the indexing codes of groups D06F 2101/00 - D06F 2105/00.

58/02 . having dryer drums rotating about a horizontal axis

58/04 . . Details (controlling or regulating devices D06F 34/00)

58/06 . . . Mountings for the rotating drums

58/08 . . . Driving arrangements

58/10 . Drying cabinets or drying chambers having heating or ventilating means

58/12 . . having conveying means for moving clothes, e.g. along an endless track

58/14 . . Collapsible drying cabinets; Wall mounted collapsible hoods

58/16 . having heatable surfaces for contacting the laundry (D06F 59/00 takes precedence)

58/18 . Detachable or door-mounted drying arrangements for washing machines

58/20 . General details of domestic laundry dryers (D06F 59/00 takes precedence)

58/203 . . {Laundry conditioning arrangements}

58/206 . . {Heat pump arrangements}

58/22 . . Lint collecting arrangements

58/24 . . Condensing arrangements

58/26 . . Heating arrangements, e.g. gas heating equipment (D06F 58/18 takes precedence)

58/263

. . . {Gas heating equipment}

58/266

. . . {Microwave heating equipment}

58/30

. Drying processes (controlling a series of operations in domestic laundry dryers D06F 58/32)

58/32

. Control of operations performed in domestic laundry dryers (control of operations performed in washer-dryers D06F 33/50; details of control systems, e.g. for detecting or measuring specific parameters or for selection or indication of programs D06F 34/00)

58/34

. . characterised by the purpose or target of the control

58/36

. . . Control of operational steps, e.g. for optimisation or improvement of operational steps depending on the condition of the laundry

58/38

. . . . of drying, e.g. to achieve the target humidity

58/40

. Control of the initial heating of the drying chamber to its operating temperature

58/42

. by unheated air

58/44

. of conditioning or finishing, e.g. for smoothing or removing creases

58/45

. . . Cleaning or disinfection of machine parts, e.g. of heat exchangers or filters

58/46

. . . Control of the operating time

58/48

. . . Control of the energy consumption

58/50

. . . Responding to irregular working conditions, e.g. malfunctioning of blowers

58/52

. . . Preventing or reducing noise

59/00

Supports adapted to retain the shape of particular articles being dried, e.g. incorporating heating means {(devices for retaining the shape of hats A42B 1/002)}

59/02

. for garments

59/04

. . for gloves

59/06

. . for stockings

59/08

. for curtains, table cloths, or other articles of sheet form

60/00

Drying not provided for in groups D06F 53/00 - D06F 59/00

Ironing; Pressing

61/00

Ironing machines using two or more co-operating pressing rollers

61/02

. with two rollers

61/04

. with three or more rollers one above the other

61/06

. with successive pairs of rollers

61/08

. with one central roller co-operating with a plurality of circumferential rollers

61/10

. with two or more central rollers co-operating with a plurality of circumferential rollers

63/00

Ironing machines having a roller or rollers coating with a fixed or moving flat bed or table (coverings or pads D06F 83/00)

63/02

. with two or more rollers co-acting with a fixed or moving flat bed or table

65/00

Ironing machines with rollers rotating against curved surfaces

65/02

. with one roller only

65/04

. . the bed being urged against the roller by hand or foot

65/06

. . the bed being urged against the roller by power

- 65/08 . . the roller being urged against the bed
- 65/10 . with two or more rollers co-operating with two or more curved surfaces
- 67/00 Details of ironing machines provided for in groups D06F 61/00, D06F 63/00, or D06F 65/00 (coverings or pads for ironing or pressing members D06F 83/00)**
 - 67/005 . {Stands or cabinets}
 - 67/02 . Rollers; Heating arrangements therefor
 - 67/04 . Arrangements for feeding or spreading the linen
 - 67/06 . Means for stripping the linen from the rollers
 - 67/08 . Beds; Heating arrangements therefor
 - 67/10 . Driving arrangements
- 69/00 Ironing machines not otherwise provided for**
 - 69/02 . using endless or other ironing or pressing belts or aprons
 - 69/04 . with relatively-sliding flat surfaces
- 71/00 Apparatus for hot-pressing clothes, linen or other textile articles, i.e. wherein there is substantially no relative movement between pressing element and article while pressure is being applied to the article; Similar machines for cold-pressing clothes, linen or other textile articles**
 - 71/02 . actuated wholly by hand or foot (D06F 71/08 takes precedence)
 - 71/023 . . {with an upper movable pressing member and a lower fixed pressing member}
 - 71/026 . . . {the upper movable member rotating about a fixed axis}
 - 71/04 . power-actuated (D06F 71/08 takes precedence)
 - 71/043 . . {with an upper movable pressing member and a lower fixed pressing member (D06F 71/06 takes precedence)}
 - 71/046 . . . {the upper movable member rotating about a fixed axis}
 - 71/06 . . fluid-actuated
 - 71/062 . . . {with an upper movable pressing member and a lower fixed pressing member}
 - 71/065 {the upper movable member rotating about a fixed axis}
 - 71/067 {Fluid-control mechanisms for controlling the ironing pressure or the movement of the pressure member}
 - 71/08 . wherein one or more of the pressing elements is moved laterally between successive pressing operations
 - 71/10 . . by movement about a vertical axis
 - 71/12 . . by movement about a horizontal axis
 - 71/14 . . by a rectilinear movement
 - 71/16 . having a pressing element or buck adapted to provide interior support for a garment to be pressed (D06F 71/18 takes precedence)
 - 71/18 . specially adapted for pressing particular garments or parts thereof
 - 71/20 . . for pressing shirts
 - 71/22 . . for pressing collars
 - 71/24 . . for pressing cuffs
 - 71/26 . . for pressing shoulders or necks
 - 71/28 . . for pressing sleeves, trousers, or other tubular garments or tubular parts of garments
 - 71/285 . . . {for pressing sleeves}
 - 71/29 . . . Trousers
 - 71/295 {the top portion of trousers}
- 71/30 . specially adapted for pressing seams (specially adapted for pressing particular garments or parts thereof D06F 71/18)
- 71/32 . Details
- 71/323 . . {Protective devices, e.g. burn guards}
- 71/326 . . {Arrangements for producing a sliding or ironing movement between the pressing elements in closed position}
- 71/34 . . Heating arrangements; Arrangements for supplying or removing steam or other gases
- 71/36 . . Pressing elements (for use in pressing particular garments or parts thereof D06F 71/18; coverings or pads therefor D06F 83/00)
- 71/38 . . Feeding arrangements (feeding by lateral movement of pressing elements D06F 71/08)
- 71/40 . . Holders or stretchers for the article to be pressed
- 73/00 Apparatus for smoothing or removing creases from garments or other textile articles by formers, cores, stretchers, or internal frames, with the application of heat or steam (combined with external pressure means D06F 71/00)**
 - 73/02 . having one or more treatment chambers
- 75/00 Hand irons**
 - 75/02 . Externally-heated hand irons; Hand irons internally heated by means other than electricity, e.g. by solid fuel, by steam
 - 75/04 . . by pre-heated block
 - 75/06 . . with means for supplying steam or liquid to the article being ironed (D06F 75/32 takes precedence)
 - 75/08 . Hand irons internally heated by electricity
 - 75/10 . . with means for supplying steam to the article being ironed (D06F 75/32 takes precedence)
 - 75/12 . . . the steam being produced from water supplied to the iron from an external source
 - 75/14 . . . the steam being produced from water in a reservoir carried by the iron
 - 75/16 the reservoir being heated to produce the steam
 - 75/18 the water being fed slowly, e.g. drop by drop, from the reservoir to a steam generator
 - 75/20 . . . Arrangements for discharging the steam to the article being ironed
 - 75/22 . . with means for supplying liquid to the article being ironed (D06F 75/10 takes precedence)
 - 75/24 . . Arrangements of the heating means within the iron; Arrangements for distributing, conducting or storing the heat
 - 75/243 . . . {using other than ohmic-resistance heating means, e.g. electrolytic or induction heating}
 - 75/246 . . . {using infrared lamps}
 - 75/26 . . Temperature control or indicating arrangements
 - 75/265 . . . {Temperature indicating arrangements; Control knobs}
 - 75/28 . . Arrangements for attaching, protecting or supporting the electric supply cable
 - 75/30 . Hand irons of special external shape or form
 - 75/32 . Attachments for converting hand irons to steam irons
 - 75/34 . Handles; Handle mountings
 - 75/36 . Casings
 - 75/38 . Sole plates (D06F 75/20 takes precedence)

- 75/40 . Stands or supports attached to the iron
- 77/00 Arrangements for exerting pressure on, lifting, or guiding hand irons**
- 77/005 . {using an electro-magnet or a permanent magnet in the iron or the ironing board}
- 79/00 Accessories for hand irons**
- 79/02 . Stands or supports neither attached to, nor forming part of, the iron or ironing board
- 79/023 . . {with means for supplying current to the iron}
- 79/026 . . . {for cordless irons}
- 79/04 . Stoves or other heating means specially adapted for heating irons externally
- 79/06 . Means, not forming part of the iron, for cooling the iron
- 81/00 Ironing boards (coverings or pads therefor [D06F 83/00](#); kitchen cabinets with ironing boards movable outwards to a position of use [A47B 77/10](#))**
- 81/003 . {with flat iron support}
- 81/006 . {with fabric support or garment rack}
- 81/02 . with collapsible underframe
- 81/04 . . with means for adjusting height
- 81/06 . attachable to independent supports, e.g. walls
- 81/08 . incorporating heating, steaming, or forced ventilation means
- 81/10 . Top board elements
- 81/12 . Sleeve boards; Attaching means therefor
- 81/14 . Means for attaching covers
- 83/00 Coverings or pads for ironing or pressing members**
- 85/00 Independent elements for interposition between the article and the ironing or pressing surface**

Other laundry apparatus or systems

- 87/00 Apparatus for moistening or otherwise conditioning the article to be ironed or pressed (apparatus for smoothing or removing creases from garments or other textile articles by formers, cores, stretchers or internal frames, with the application of heat or steam [D06F 73/00](#) (; devices used in combination with a laundry dryer [D06F 58/203](#)))**
- 89/00 Apparatus for folding textile articles with or without stapling**
- 89/005 . {Manual folding devices, e.g. for folding bed sheets ([D06F 89/02](#) takes precedence)}
- 89/02 . of textile articles to be worn, e.g. shirts
- 89/023 . . {of shirts}
- 89/026 . . . {Details, e.g. collar holders}
- 91/00 Starching apparatus**
- 93/00 Counting, sorting, or marking arrangements specially adapted for laundry purposes**
- 93/005 . {Marking arrangements}
- 95/00 Laundry systems or arrangements of apparatus or machines; Mobile laundries ([D06F 31/00](#) takes precedence)**
- 95/002 . {Baskets or bags specially adapted for holding or transporting laundry; Supports therefor}
- 95/004 . . {Bags; Supports therefor}

- 95/006 . . . {Bags for holding the laundry during washing ([D06F 5/005](#) takes precedence)}
- 95/008 . {Devices for keeping articles together during laundering, e.g. for keeping socks in pairs ([D06F 95/004](#) takes precedence); Devices for protecting or shielding certain parts of the articles during laundering, e.g. button protectors}

Indexing scheme associated with groups [D06F 33/00](#), [D06F 34/00](#), [D06F 58/00](#)**2101/00 User input for the control of domestic laundry washing machines, washer-dryers or laundry dryers**

- 2101/02 . Characteristics of laundry or load
- 2101/04 . . Quantity, e.g. weight
- 2101/06 . . Type or material
- 2101/10 . Spin speed
- 2101/12 . Washing temperature
- 2101/14 . Time settings
- 2101/16 . Target humidity for the drying process, e.g. very-dry cycles
- 2101/18 . Target temperature for the drying process, e.g. low-temperature cycles
- 2101/20 . Operation modes, e.g. delicate laundry washing programs, service modes or refreshment cycles

2103/00 Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers

- 2103/02 . Characteristics of laundry or load
- 2103/04 . . Quantity, e.g. weight or variation of weight
- 2103/06 . . Type or material
- 2103/08 . . Humidity
- 2103/10 . . . expressed as capacitance or resistance
- 2103/12 . . Temperature
- 2103/14 . Supply, recirculation or draining of washing liquid
- 2103/16 . Washing liquid temperature
- 2103/18 . Washing liquid level
- 2103/20 . Washing liquid condition, e.g. turbidity
- 2103/22 . . Content of detergent or additives
- 2103/24 . Spin speed; Drum movements
- 2103/26 . Imbalance; Noise level
- 2103/28 . Air properties
- 2103/30 . . Pressure
- 2103/32 . . Temperature
- 2103/34 . . Humidity
- 2103/36 . . Flow or velocity
- 2103/38 . Time, e.g. duration
- 2103/40 . Opening or locking status of doors
- 2103/42 . related to filters or pumps
- 2103/44 . Current or voltage
- 2103/46 . . of the motor driving the drum
- 2103/48 . . of the motor driving the pump
- 2103/50 . related to heat pumps, e.g. pressure or flow rate
- 2103/52 . related to electric heating means, e.g. temperature or voltage
- 2103/54 . related to blowers or fans
- 2103/56 . related to air ducts, e.g. position of flow diverters
- 2103/58 . related to condensation, e.g. condensate water level
- 2103/60 . related to auxiliary conditioning or finishing agents, e.g. filling level of perfume tanks
- 2103/62 . . related to systems for water or steam used for conditioning or finishing

- 2103/64 . Radiation, e.g. microwaves
- 2103/66 . . for treatment of laundry otherwise than by drying,
e.g. using UV light
- 2103/68 . Operation mode; Program phase
- 2103/70 . Number of operational cycles
- 2105/00 Systems or parameters controlled or affected by
the control systems of washing machines, washer-
dryers or laundry dryers**
- 2105/02 . Water supply
- 2105/04 . . from separate hot and cold water inlets
- 2105/06 . Recirculation of washing liquids, e.g. by pumps or
diverting valves
- 2105/08 . Draining of washing liquids
- 2105/10 . Temperature of washing liquids; Heating means
therefor
- 2105/12 . Humidity or dryness of laundry
- 2105/14 . Temperature of laundry
- 2105/16 . Air properties
- 2105/18 . . Pressure
- 2105/20 . . Temperature
- 2105/22 . . Humidity
- 2105/24 . . Flow or velocity
- 2105/26 . Heat pumps
- 2105/28 . Electric heating
- 2105/30 . Blowers
- 2105/32 . Air flow control means
- 2105/34 . Filtering, e.g. control of lint removal devices
- 2105/36 . Condensing arrangements, e.g. control of water
injection therefor
- 2105/38 . Conditioning or finishing, e.g. control of perfume
injection
- 2105/40 . . using water or steam
- 2105/42 . Detergent or additive supply
- 2105/44 . Opening, closing or locking of doors
- 2105/46 . Drum speed; Actuation of motors, e.g. starting or
interrupting
- 2105/48 . . Drum speed
- 2105/50 . Starting machine operation, e.g. delayed start or re-
start after power cut
- 2105/52 . Changing sequence of operational steps; Carrying
out additional operational steps; Modifying
operational steps, e.g. by extending duration of steps
- 2105/54 . Changing between normal operation mode and
special operation modes, e.g. service mode,
component cleaning mode or stand-by mode
- 2105/56 . Remaining operation time; Remaining operational
cycles
- 2105/58 . Indications or alarms to the control system or to the
user
- 2105/60 . . Audible signals
- 2105/62 . Stopping or disabling machine operation

C.3 CPC definition D06F

D06F

LAUNDERING, DRYING, IRONING, PRESSING OR FOLDING TEXTILE ARTICLES

Definition statement

This place covers:

- Domestic or laundry dry-cleaning apparatuses using volatile solvents;
- Domestic, laundry or tailors' ironing or other hot-pressing of clothes, linen or other textile articles;
- Controlling or regulating domestic laundry dryers (cf. [D06F 58/30](#)).

The Indexing Codes [D06F 2101/00](#) - [D06F 2101/20](#) cover user input for the control of domestic laundry washing machines, washer-dryers or laundry dryers.

The Indexing Codes [D06F 2103/00](#) - [D06F 2103/70](#) cover parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers.

The Indexing Codes [D06F 2105/00](#) - [D06F 2105/62](#) cover systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers.

Relationships with other classification places

This subclass does not cover treatment of textiles by purely chemical means, which is covered by subclasses [D06L](#) and [D06M](#).

Apparatuses for wringing, washing, dry cleaning, ironing or other hot-pressing of textiles in manufacturing operations are covered by [D06B](#) and [D06C](#).

A document should be classified in [D06F](#) if:

- It mainly relates to the treatment of home textiles, the treatment of other kinds of textiles should generally be classified somewhere else.
- It generally (but not always) relates to a domestic appliance for treating a textile article (the machine may however be coin-operated).

Exceptions to the rule at point (II) above are:

[D06F 31/00](#), [D06F 43/00](#), [D06F 47/00](#), [D06F 58/12](#), [D06F 67/04](#), [D06F 71/00](#), [D06F 89/00](#) , [D06F 93/00](#), [D06F 95/00](#) as well as their subgroups.

Applications regarding washing machine components like e.g. pumps, electric motors, electronic devices, displays per se, i.e. applications which claim the technical features of those components without describing any particular interaction between said components and the household appliance do not usually belong to [D06F](#), but to the general classification entry of their function per se.

The above-mentioned devices are mainly seen as "black boxes" connected to the appliance so as to interact with the appliance's operation.

For example, if an application relates to a jog dial, a display or a selector switch, there must be an interaction between said devices and the appliance itself in order to classify said application in [D06F 34/28](#) (the display or the switch should e.g. be mounted to the front panel and/or should e.g. be used for selecting a washing program).

A set of claims including a claim like "a household appliance comprising the device (e.g. a pump) according to claim 1" does only mean that a device according to claim 1 may be used in a household appliance (e.g. in a washing machine) and that the application may be classified in [D06F](#) only if there's a clear interaction between the component and the appliance's operation.

D06F (continued)

CPC - D06F - 2024.05

Relationships with other classification places

It is not to be automatically assumed that such applications belong to [D06F](#), nor that a household appliance should automatically be a washing machine or a dryer (a household appliance could e.g. be a stove, an oven, a refrigerator etc.).

References**Application-oriented references**

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Apparatus for blocking, pressing, steaming or stretching hats	A42C
---	----------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers	A47L 15/00
Cleaning in general	B08B
Treating textile materials by liquids, gases or vapors	D06B
Valves	F16K
Drying in general	F26B
Sensors	G01M
Electric motors	H02K

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Drum	Washing receptacle, rotating drum, washing drum or washing tub; the washing receptacle or drum is where the clothes are placed. Drums are generally perforated and are usually the rotating part of the washing machine, however, in D06F 13/00 and subgroups, D06F 15/00 and subgroups, D06F 17/00 and subgroups, D06F 18/00 and subgroups and D06F 19/00 and subgroups, the drum is always stationary.
Tub	Enclosing receptacle, external drum, external tub or fixed tub; the tub is the fixed part of the washing assembly, it contains the washing drum as well as the washing fluid; the tub is generally stationary and water-tight.
Washing assembly	Oscillating assembly, oscillating part or suspended part; it is generally composed by both the drum and the tub.
Lifter	Rib, elements mounted to a rotating drum and acting mainly on the clothes
Agitator:	Rotary and/or oscillating device mounted inside a stationary washing drum and acting mainly on the clothes
Impeller	Rotary devices mounted inside a stationary washing drum and acting mainly on the washing liquid

D06F 1/00

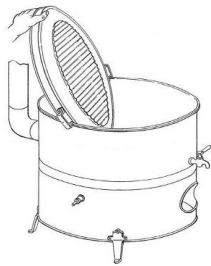
Washing receptacles (of washing machines [D06F 37/00](#), [D06F 39/00](#))

Definition statement

This place covers:

Washing receptacles suitable for hand washing (e.g. wash-up bowls).

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of washing machines

D06F 37/00 , D06F 39/00

D06F 1/02

Wash-tubs; Supports therefor

Definition statement

This place covers:

Wash-up bowls per se.

Illustrative example of subject matter classified in this group.



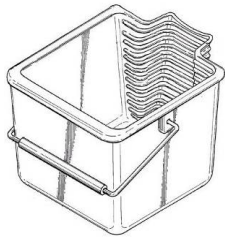
D06F 1/04

the tub walls or bottom having corrugations

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Rubbing boards	D06F 3/02
----------------	---------------------------

D06F 1/06

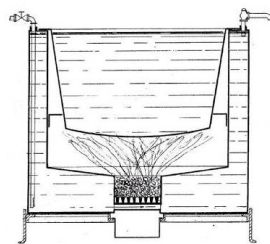
Wash-boiler receptacles

Definition statement

This place covers:

Wash-up bowls (generally made of metal) which can be heated by e.g. a gas burner.

Illustrative example of subject matter classified in this group.



D06F 1/08

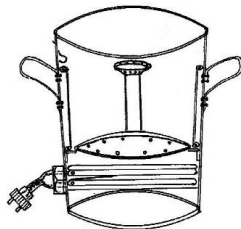
with special means for water circulation by heat, e.g. fountain-washers

Definition statement

This place covers:

Wash-up bowls (generally made of metal) comprising means for concentrating the heat of e.g. a burner and for applying it in such a way (e.g. to a hot water circuit), that steam within the boiler is quickly generated and, together with hot water, it is discharged on the garments to be washed.

Illustrative example of subject matter classified in this group.



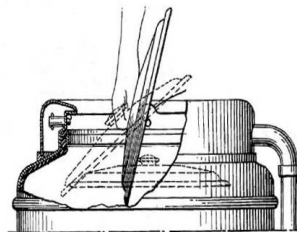
D06F 1/10

Covers; Handles

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 1/12

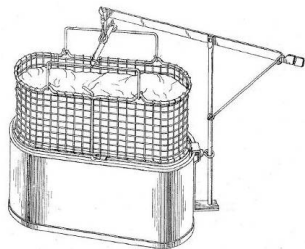
Racks or other rigid open containers of skeleton or like apertured construction supporting clothes in washing receptacles

Definition statement

This place covers:

Wire frame baskets or perforated metal containers suitable for supporting clothes in washing receptacles.

Illustrative example of subject matter classified in this group.



D06F 3/00

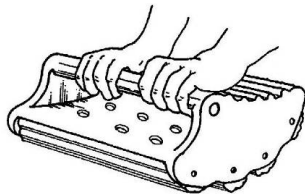
Hand rubbing apparatus (corrugated tub-walls [D06F 1/04](#))

Definition statement

This place covers:

Corrugated means against which the clothes are rubbed.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Wash-tubs with the tub walls or bottom having corrugations	D06F 1/04
--	---------------------------

Special rules of classification

Wash-up bowls incorporating a corrugated surface have to be classified in [D06F 1/04](#) only.

Rubbing boards have to be classified in [D06F 3/02](#) only.

D06F 3/02

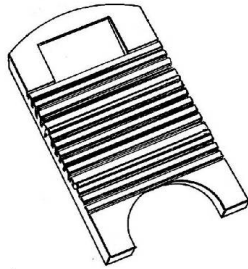
Rubbing boards

Definition statement

This place covers:

Corrugated boards against which the clothes are rubbed.

Illustrative example of subject matter classified in this group.



D06F 3/04

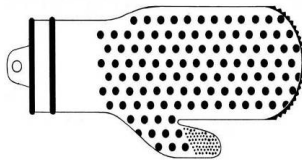
Hand rubbers, e.g. gloves with corrugated surfaces

Definition statement

This place covers:

Rubbing devices which are supposed to be used directly by hand.

Illustrative example of subject matter classified in this group.



D06F 5/00

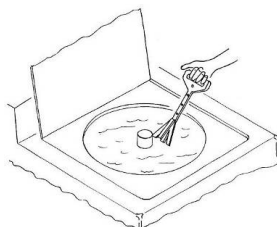
Hand implements for washing purposes, e.g. sticks (hand rubbing appliances [D06F 3/00](#))

Definition statement

This place covers:

Hand implements which are specifically designed for uniformly distributing/stirring the washing agent and/or the laundry in the washing tub.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Hand rubbing appliances	D06F 3/00
-------------------------	---------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Brushes	A46B
---------	----------------------

D06F 5/005

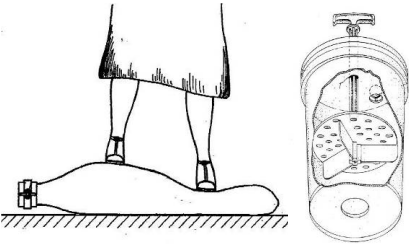
{Receptacles for washing articles, e.g. hosiery, by shaking or squeezing}

Definition statement

This place covers:

Washing receptacles, wherein the washing action is obtained by shaking or squeezing the receptacle itself.

Illustrative example of subject matter classified in this group.



D06F 5/02

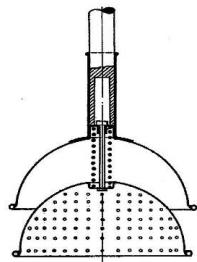
Plungers, dollies, pounders, squeezers, or the like

Definition statement

This place covers:

Washing devices which, during the washing action, are repeatedly pressed against the laundry/ removed from the laundry along a generally vertical direction.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Grippers	D06F 5/06
----------	---------------------------

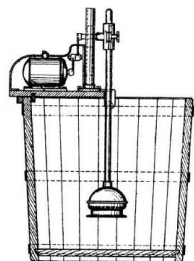
D06F 5/04

adapted for removable mounting on receptacles such as wash-tubs

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 5/06

Grippers

Definition statement

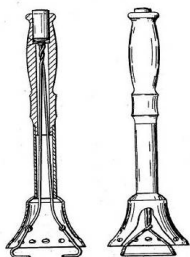
This place covers:

Laundry grippers specially designed for washing purposes.

D06F 5/06 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



D06F 7/00

Washing devices adapted to be used independently of any particular receptacle, e.g. for removable mounting on wash-tubs, bath-tubs, or the like

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 7/02

of the rotary-impeller type

Definition statement

This place covers:

Impellers or similar rotating bodies suitable for agitating the washing liquid.

D06F 7/02 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



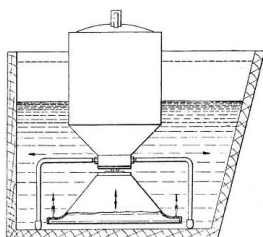
D06F 7/04
of the vibrator type

Definition statement

This place covers:

Washing devices, wherein the agitation of the washing fluid is generally obtained by oscillating e.g. a solid flat surface with a steady uninterrupted rhythm.

Illustrative example of subject matter classified in this group.



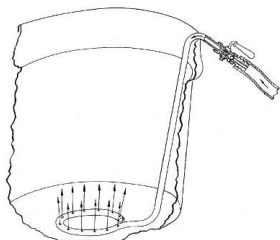
D06F 7/06
agitating the washing liquid by air

Definition statement

This place covers:

Washing devices, wherein the washing action is obtained by agitating the washing liquid using e.g. air jets.

Illustrative example of subject matter classified in this group.



D06F 9/00

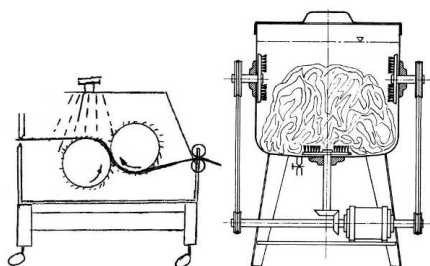
Brushing-type washing machines

Definition statement

This place covers:

Devices for washing home textiles comprising one or more brushing elements, wherein said brushing element comprises bristles hard enough to remove dirt but not so hard that they cause damage to the laundry.

Illustrative examples of subject matter classified in this group.



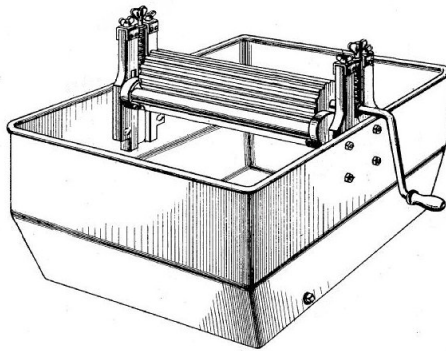
D06F 11/00

Washing machines using rollers, e.g. of the mangle type

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Wringing machines with two or more cooperating rollers.

D06F 45/00

D06F 13/00

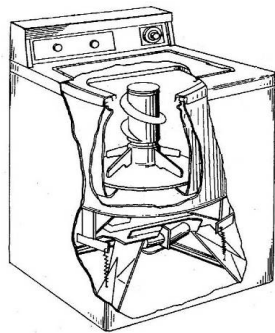
Washing machines having receptacles, stationary for washing purposes, with agitators therein contacting the articles being washed (plungers or the like adapted for removable mounting on receptacles [D06F 5/04](#))

Definition statement

This place covers:

Vertical axis washing machines provided with laundry agitators.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Plungers or the like adapted for removable mounting on receptacles	D06F 5/04
--	---------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing devices adapted to be used independently of any particular receptacle	D06F 7/00
---	---------------------------

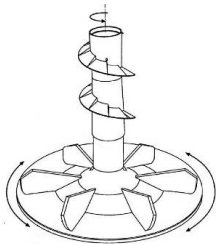
D06F 13/02

wherein the agitator has an oscillatory rotary motion only

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Agitator	Rotary and/or oscillating device mounted inside a stationary washing drum and acting mainly on the clothes
----------	--

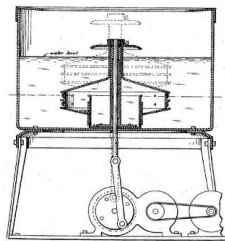
D06F 13/04

wherein the agitator has an axial motion only

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



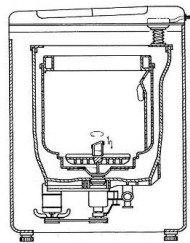
D06F 13/06

wherein the agitator has both rotary, e.g. oscillating rotary, motion and axial motion

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 13/08

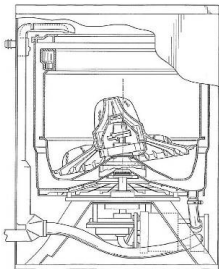
wherein the agitator has a gyratory or orbital motion

Definition statement

This place covers:

Vertical axis washing machines, wherein the agitator rotates and/or has an orbital motion.

Illustrative example of subject matter classified in this group.



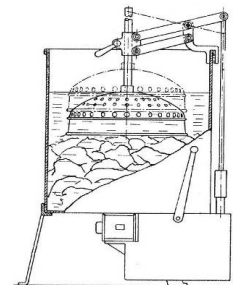
D06F 15/00

Washing machines having beating, rubbing or squeezing means in receptacles stationary for washing purposes (plungers or the like adapted for removable mounting on receptacles [D06F 5/04](#); mangle-type washing machines [D06F 11/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Plungers or the like adapted for removable mounting on receptacles	D06F 5/04
Mangle-type washing machines	D06F 11/00

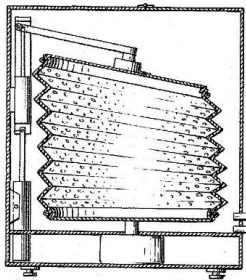
D06F 15/02

wherein the articles being washed are squeezed by a flexible diaphragm or bag

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 17/00

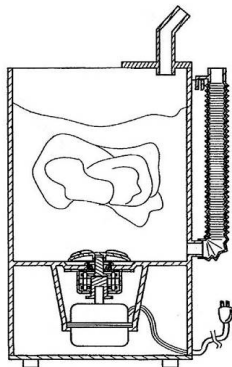
**Washing machines having receptacles, stationary for washing purposes,
wherein the washing action is effected solely by circulation or agitation of the
washing liquid**

Definition statement

This place covers:

Washing machines, wherein the washing action is only obtained by circulating or agitating the washing fluid.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing devices adapted to be used independently of any particular receptacle	D06F 7/00
Using vibrations for washing purposes	D06F 19/00

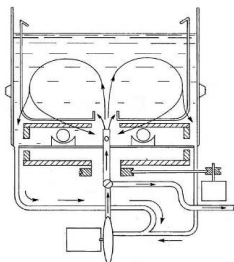
D06F 17/02

by pumps ([D06F 17/04](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Washing action effected solely by water jets	D06F 17/04
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / washing liquid circulation by appl. pressure	A47L 15/08
--	----------------------------

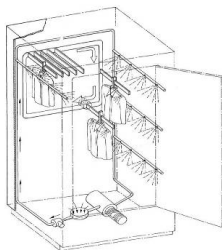
D06F 17/04

solely by water jets

Definition statement

This place covers:

Washing machines technically close to dishwashers.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers having stat. baskets and rigidly mounted spraying devices	A47L 15/16
---	----------------------------

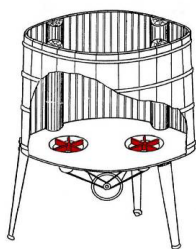
D06F 17/06

by rotary impellers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



Synonyms and Keywords

In this patent documents, the word "Impeller" is often used as a "synonym" for "pulsator".

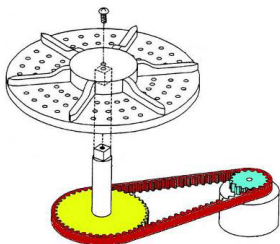
D06F 17/08

Driving arrangements for the impeller

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



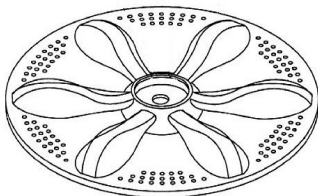
D06F 17/10

Impellers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



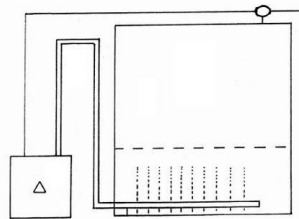
D06F 17/12

solely by gases, e.g. air or steam, introduced into the washing liquid

Definition statement

This place covers:

Washing machines technically close to dishwashers (no drum is present).

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Dishwashers wherein the circulation of the washing liquid is obtained by introducing compressed gas (e.g. air) in the washing liquid	A47L 15/10
--	----------------------------

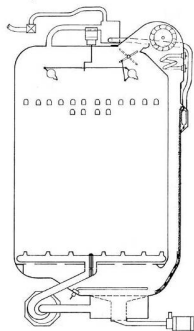
D06F 18/00

Washing machines having receptacles, stationary for washing purposes, and having further drying means (control of washing or of washing and drying [D06F 33/00](#), [D06F 34/00](#); domestic laundry dryers [D06F 58/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Control of washing or of washing and drying	D06F 33/00 , D06F 34/00
Domestic laundry dryers	D06F 58/00

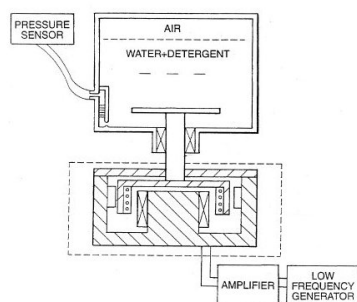
D06F 19/00

Washing machines using vibrations for washing purposes

Definition statement

This place covers:

Washing machines comprising vibrating devices.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices of the vibrator type adapted to be used independently of any particular receptacle	D06F 7/04
--	---------------------------

D06F 21/00

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement (with receptacles serving both for washing and centrifugally separating water from the laundry [D06F 23/00](#), [D06F 25/00](#); programme control aspects [D06F 33/00](#))

Definition statement

This place covers:

General concepts regarding the washing machine as a whole;

Machines which do not necessarily spin-dry and which may comprise lifters and/or impellers.

References**Limiting references**

This place does not cover:

Washing machines with receptacles moving bodily about an axis	D06F 27/00
Programme-control aspects of washing machines	D06F 33/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles moving bodily about an axis	D06F 27/00
---	----------------------------

Synonyms and Keywords

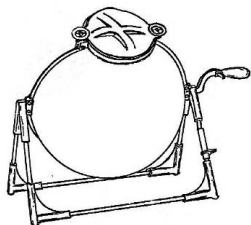
In patent documents, the following words/expressions are often used as synonyms:

- receptacle and drum
- enclosing receptacle and tub
- lifters and ribs

D06F 21/02**about a horizontal axis****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.



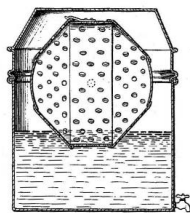
D06F 21/04

within an enclosing receptacle

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



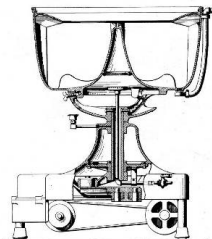
D06F 21/06

about a vertical axis

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 21/08

within an enclosing receptacle

Definition statement

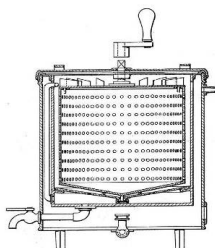
This place covers:

Washing machines comprising a tub (enclosing receptacle).

D06F 21/08 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.

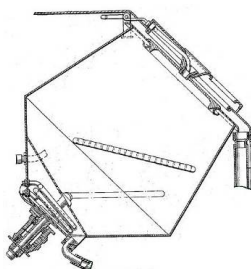


D06F 21/10
about an inclined axis

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

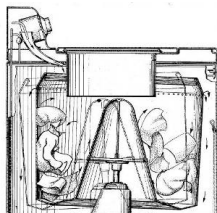


D06F 21/12
the receptacle having a wobbling motion

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



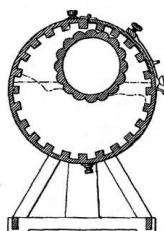
D06F 21/14

with rubbing or beating means not secured to, or forming part of, the receptacle

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**D06F 23/00**

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and for centrifugally separating water from the laundry (with further drying means [D06F 25/00](#); programme control aspects [D06F 33/00](#))

Definition statement

This place covers:

General layouts.

References**Limiting references**

This place does not cover:

Washing machines of this type with further drying means	D06F 25/00
Programme-control aspects	D06F 33/00

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- tub and drum

D06F 23/02

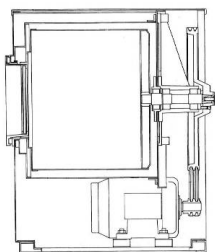
and rotating or oscillating about a horizontal axis

Definition statement

This place covers:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement around an horizontal axis, the receptacle serving both for washing and centrifugally draining.

Illustrative example of subject matter classified in this group.



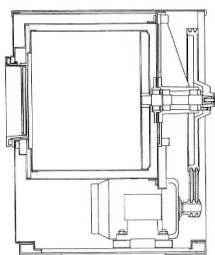
D06F 23/025

{with a rotatable imperforate tub}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 23/04

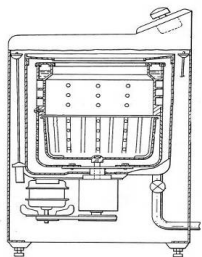
and rotating or oscillating about a vertical axis

Definition statement

This place covers:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement around a vertical axis, the receptacle serving both for washing and centrifugally draining.

Illustrative example of subject matter classified in this group:



D06F 23/06

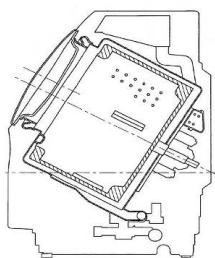
and rotating or oscillating about an inclined axis

Definition statement

This place covers:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement around an inclined axis, the receptacle serving both for washing and centrifugally draining.

Illustrative example of subject matter classified in this group.



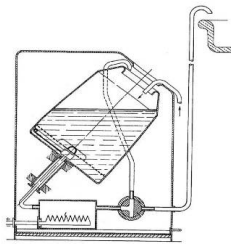
D06F 23/065

{with a rotatable imperforate tub}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 25/00

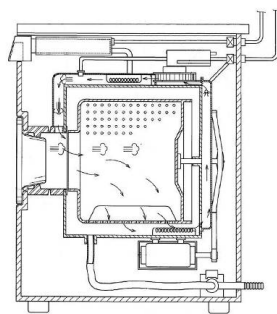
Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and for centrifugally separating water from the laundry and having further drying means, e.g. using hot air (control of washing or of washing and drying [D06F 33/00](#), [D06F 34/00](#); domestic laundry dryers [D06F 58/00](#))

Definition statement

This place covers:

General and simple aspects of the drying means.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Control of washing or of washing and drying	D06F 33/00 , D06F 34/00
Domestic laundry dryers	D06F 58/00

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "receptacle" and "drum"

D06F 27/00

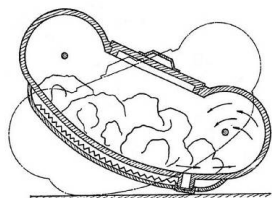
Washing machines with receptacles moving bodily, e.g. reciprocating, swinging

Definition statement

This place covers:

Washing machines having receptacles which do not necessarily rotate around an axis and, wherein the washing action is mainly obtained by shaking, oscillating, lifting and/or dropping of the receptacle as a whole.

Illustrative example of subject matter classified in this group.



D06F 29/00

Combinations of a washing machine with other separate apparatus in a common frame or the like, e.g. with rinsing apparatus

Definition statement

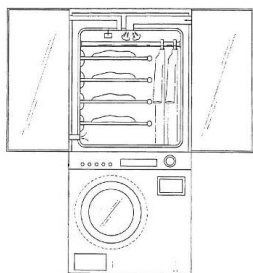
This place covers:

Combinations of washing machines with other separate household appliances, wherein both devices share the same support structure (e.g. frame or casing).

D06F 29/00 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



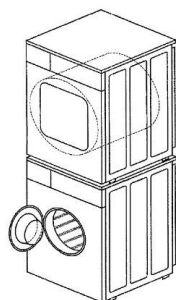
D06F 29/005

{the other separate apparatus being a drying appliance}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



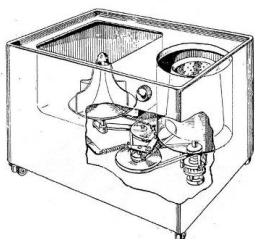
D06F 29/02

with liquid-extracting apparatus (with roller wringer [D06F 45/12](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Combination with roller wringer

D06F 45/12

D06F 31/00

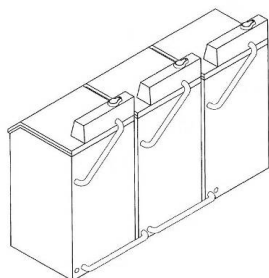
Washing installations comprising an assembly of several washing machines or washing units, e.g. continuous flow assemblies

Definition statement

This place covers:

Industrial devices for hospitals, hotels or professional laundries.

Illustrative example of subject matter classified in this group.



D06F 31/005

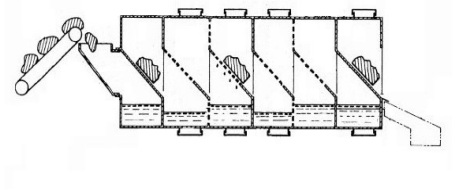
{consisting of one or more rotating drums through which the laundry passes in a continuous flow}

Definition statement

This place covers:

Batch or tunnel washing machines, wherein the drums have either vertical or horizontal axes.

Illustrative example of subject matter classified in this group.



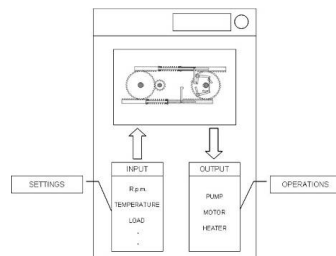
D06F 33/06

substantially mechanically

Definition statement

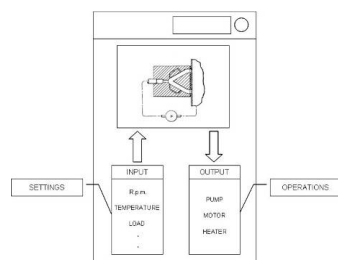
This place covers:

Illustrative example of subject matter classified in this group.

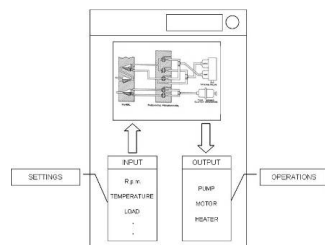


D06F 33/08**substantially hydraulically****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 33/10****substantially pneumatically****Definition statement***This place covers:*

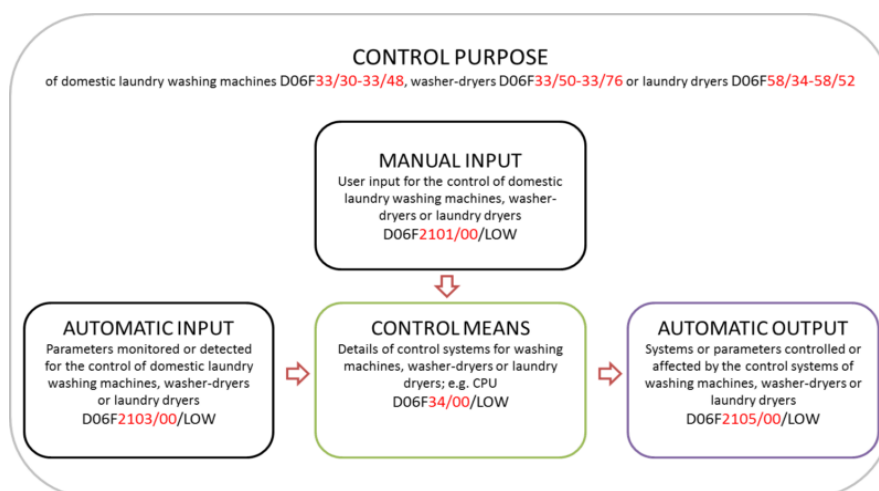
Illustrative example of subject matter classified in this group.

**D06F 33/30****Control of washing machines characterised by the purpose or target of the control (controlling processes of washer-dryers [D06F 33/50](#))****Definition statement***This place covers:*

The controlling processes of washing machines that are classified in this group and its subgroups according to their specific purpose, e.g. the optimization / improvement of the washing phase or the prevention of imbalance or noise. The further information relating to the (manual and/or automatic) input and the output of these controlling processes is classified with the mandatory indexing codes and any details of the control means per se, i.e. the "hardware" is classified in the groups relating to the details of the control means (see special rules of classification for this group and its subgroups).

Concept

The following picture schematically illustrates how a controlling process of a washing machine, washer-dryer or laundry dryer is classified based on how it works. An input signal (i.e. a user input as "manual input" or an automatically detected signal as "automatic input", e.g. by a sensors) is fed into a control unit as "control means", which depending on the purpose of the control sends corresponding command signals to the machine components.



A controlling process for a laundry treating apparatus (e.g. a washing machine) has a specific "control purpose" and implies the presence of a "control means" (e.g. a CPU), whereby the control means is usually a control unit which comprises a user interface (e.g. a control panel) and several sensors for the automatic detection of e.g. temperature, pressure, liquid level, etc.

Moreover, the control unit is usually configured to perform actions as "automatic output" (e.g. switching a heater ON/OFF, regulating the drum speed, etc.), depending on the purpose of the control and based on the input of the user and/or the signals provided by the sensors.

Example: washing machine - control method

Control method for a washing machine employing a control unit adapted to detect the level and the temperature of the washing liquid and to switch the tub heater ON/OFF based on the laundry load, as input by the user, such as to reduce the energy consumption.

Classification of the example:

- Purpose: [D06F 33/46](#) (Control of the energy or water consumption)
- Manual input: [D06F 2101/04](#) (Characteristics of laundry or load – Quantity, e.g. weight)
- Automatic input: [D06F 2103/16](#) (Washing liquid temperature); [D06F 2103/18](#) (Washing liquid level)
- Automatic output: [D06F 2105/10](#) (Temperature of washing liquids; Heating means therefor)
- Note: The method of the present example essentially concerns the control of the machine per se and, as such, it should not be classified in the [D06F 35/00](#) area, which relates to methods focused on the treatment of the laundry.

References

Limiting references

This place does not cover:

Controlling processes of washer-dryers	D06F 33/50
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods for washing, rinsing or spin-drying	D06F 35/005
Controlling processes for dishwashers	A47L 15/0018

Special rules of classification

It is mandatory to classify all relevant aspects related to: purpose, manual input, automatic input, automatic output and details of the control means.

- Purpose (washing machines) [D06F 33/30](#) - [D06F 33/48](#)
- Manual Input [D06F 2101/00](#) - [D06F 2101/20](#)
- Automatic Input [D06F 2103/00](#) - [D06F 2103/70](#)
- Automatic Output [D06F 2105/00](#) - [D06F 2105/62](#)
- Details of the Control Means [D06F 34/00](#) - [D06F 34/34](#)

Note: The methods in the present area essentially concern the control of the machine per se; as such, they should not be classified in [D06F 35/005](#), [D06F 35/006](#) and [D06F 35/007](#), which relate to methods focused on the treatment of the laundry; however, in exceptional cases where both aspects are important, classification symbols belonging to both areas might be assigned.

It is noted that [D06F 35/005](#) and subgroups relate to methods for treating the laundry whereas [D06F 33/00](#) and subgroups relate to devices and methods for controlling the appliance.

D06F 33/32

Control of operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry

Definition statement

This place covers:

The control of the individual operational steps or phases of a washing machine cycle.

D06F 33/34

of water filling

Definition statement

This place covers:

The control of individual operational steps concerning the water-filling phase.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Liquid discharge or supply arrangements	D06F 39/08
Water supply components, e.g. water supply valves	D06F 39/088

D06F 33/36**of washing****Definition statement**

This place covers:

The control of individual operational steps concerning the washing phase.

D06F 33/37**of metering of detergents or additives****Definition statement**

This place covers:

The control of individual operational steps concerning the employment of detergents or additives, e.g. determining the appropriate detergent amount based on the type and amount of laundry.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Devices for adding soap or other washing agents, components for dispensing detergent	D06F 39/02
--	----------------------------

D06F 33/38**of rinsing****Definition statement**

This place covers:

Control methods or control arrangements concerning the rinsing phase, e.g. having the purpose of reducing the amount of water for rinsing the laundry.

Special rules of classification

Methods for rinsing the laundry are classified in [D06F 35/006](#).

D06F 33/40**of centrifugal separation of water from the laundry****Definition statement**

This place covers:

Control methods or control arrangements concerning the spinning phase.

Special rules of classification

Methods for spinning the laundry are classified in [D06F 35/007](#).

D06F 33/42**of draining****Definition statement**

This place covers:

Control methods or control arrangements concerning the draining phase.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Liquid supply or discharge arrangements	D06F 39/08
Detecting faulty draining operations, e.g. filter blockage, faulty pump	D06F 39/082
Liquid discharge or recirculation arrangements, draining components	D06F 39/083

D06F 33/43**Control of cleaning or disinfection of washing machine parts, e.g. of tubs****Definition statement**

This place covers:

Control methods or control arrangements having the purpose of cleaning or disinfection of washing machine parts, e.g. of tubs.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Arrangements for disinfecting the tub or the drum	D06F 35/008
---	-----------------------------

Special rules of classification

Methods for disinfecting the tub or the drum are classified under [D06F 35/008](#).

Control methods for disinfecting the clothes or the washing fluid are classified in other places of [D06F](#), such as [D06F 35/00](#); [D06F 35/001](#); [D06F 35/004](#); [D06F 37/00](#); [D06F 39/00](#).

D06F 33/44**Control of the operating time, e.g. reduction of overall operating time****Definition statement**

This place covers:

Control methods or control arrangements concerning the operating time, e.g. reduction of overall operating time.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Timing arrangements	D06F 34/06
Control of the operating time in laundry dryers	D06F 58/46
Time settings	D06F 2101/14
Time, e.g. duration	D06F 2103/38
Remaining operation time; Remaining operational cycles	D06F 2105/56

D06F 33/46**Control of the energy or water consumption****Definition statement**

This place covers:

The control of operational steps concerning the reduction of energy or water consumption.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Arrangements for the recovery of water in laundry washing machines	D06F 39/20
Arrangements for the recovery of energy in laundry washing machines	D06F 39/30

D06F 33/47**Responding to irregular working conditions, e.g. malfunctioning of pumps
(safety arrangements [D06F 37/42](#))****Definition statement**

This place covers:

The control of operational steps concerning the prevention and early detection of potentially dangerous or abnormal working conditions that might cause damage to the user and/or to the machine, e.g. clogging of the drain pump, water leaks, electric malfunctions, etc.

References

Limiting references

This place does not cover:

Safety arrangements	D06F 37/42
---------------------	----------------------------

D06F 33/48

Preventing or reducing imbalance or noise

Definition statement

This place covers:

The control of operational steps to reduce and/or prevent imbalance or noise.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of washer-dryers for preventing or reducing imbalance or noise	D06F 33/76
Arrangements for detecting or measuring imbalance	D06F 34/16
Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub, or casing; Preventing or damping vibrations	D06F 37/20
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a horizontal axis)	D06F 37/225
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a vertical axis)	D06F 37/245
Parameters of unbalance or noise monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers	D06F 2103/26

D06F 33/50

Control of washer-dryers characterised by the purpose or target of the control

Definition statement

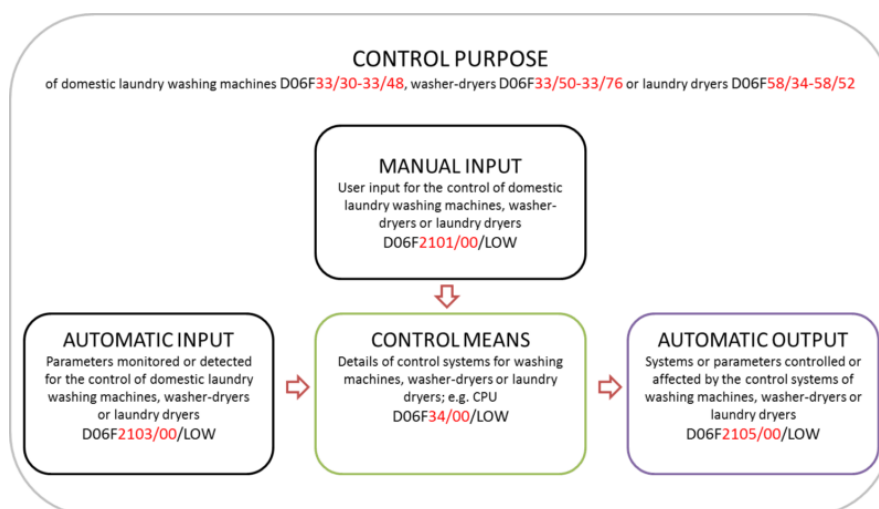
This place covers:

The controlling processes of washer-dryers that are classified in this group and its subgroups according to their specific purpose, e.g. the optimization / improvement of the washing phase or the prevention of imbalance or noise. The same classification rules set out for [D06F 33/30](#) also apply mutatis mutandis to [D06F 33/50](#) - [D06F 33/76](#), as shown in the schematic picture below. It is noted that a symbol belonging to the aforementioned range should only be given in case the control process applies specifically to a washer-dryer, and would therefore not work for a washing machine or a laundry dryer.

The further information relating to the (manual) input and the output of these controlling processes is classified with the mandatory indexing codes and any details of the control means per se, i.e. the "hardware" is classified in the groups relating to the details of the control means (see special rules of classification for this group and its subgroups).

Concept

The following picture schematically illustrates how a controlling process of a washing machine, washer-dryer or laundry dryer is classified based on how it works: an input signal (i.e. a user input as "manual input" or an automatically detected signal as "automatic input", e.g. by a sensors) is fed into a control unit as "control means", which depending on the purpose of the control sends corresponding command signals to the machine components.



The preceding image makes reference to the following symbols: [D06F 33/30-D06F 33/48](#), [D06F 33/50-D06F 33/76](#), [D06F 58/34-D06F 58/52](#), [D06F 2101/00](#), [D06F 2103/00](#), [D06F 34/00](#), [D06F 2105/00](#).

Example: washer-dryer

Washer-dryer provided with a control circuit, a control panel, an air heater and a temperature sensor for measuring the temperature of the drying air, whereby the user interface allows the user to set the maximum temperature of the drying air and the control unit is configured to regulate both the heater (e.g. by switching it ON/OFF) and the blower fan based on the temperature of the drying air.

Moreover, according to the description, the control aims to avoid damaging the laundry by overheating.

Classification of the example:

- Purpose: [D06F 33/52](#) (Control of the operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry)
- Manual input: [D06F 2101/18](#) (Target temperature for the drying process, e.g. low-temperature cycles)
- Automatic input: [D06F 2103/32](#) (Air properties – Temperature)
- Automatic output: [D06F 2105/28](#) (Electric heating); [D06F 2105/30](#) (Blowers)
- Washer-dryers: [D06F 25/00](#)

Note: As a general rule, all washer-dryers are classified in [D06F 25/00](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

Special rules of classification

As a general rule, all washer-dryers are classified in [D06F 25/00](#).

It is mandatory to classify all relevant aspects related to: purpose, manual input, automatic input, automatic output and details of the control means.

- Purpose (washer-dryers) [D06F 33/50](#) - [D06F 33/76](#)
- Manual Input [D06F 2101/00](#) - [D06F 2101/20](#)
- Automatic Input [D06F 2103/00](#) - [D06F 2103/70](#)
- Automatic Output [D06F 2105/00](#) - [D06F 2105/62](#)
- Details of the Control Means [D06F 34/00](#) - [D06F 34/34](#)

Note: The methods in the present area essentially concern the control of the machine per se and as such, they should not be classified in the [D06F 35/00](#) area, which relates to methods focused on the treatment of the laundry. However, in exceptional cases where both aspects are important, classification symbols belonging to both areas might be assigned.

D06F 33/52

Control of the operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry

Definition statement

This place covers:

The control of operational steps, which are focused on the condition of the laundry.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

D06F 33/54

of water filling

Definition statement

This place covers:

The control of operational steps concerning the water-filling phase.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Liquid discharge or supply arrangements	D06F 39/08
Water supply components, e.g. water supply valves	D06F 39/088

D06F 33/56

of washing

Definition statement

This place covers:

The control of operational steps concerning the washing phase.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

D06F 33/57

of metering of detergents or additives

Definition statement

This place covers:

The control of individual operational steps concerning the employment of detergents or additives, e.g. determining the appropriate detergent amount based on the type and amount of the laundry load.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Devices for adding soap or other washing agents, components for dispensing detergent	D06F 39/02

D06F 33/58**of rinsing****Definition statement**

This place covers:

Control methods or control arrangements concerning the rinsing phase, e.g. reducing the amount of water for rinsing the laundry load.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

Special rules of classification

Methods for rinsing the laundry (i.e. wherein the focus is on the treatment of the laundry, not on the control of the machine) are classified in [D06F 35/006](#).

D06F 33/60**of centrifugal separation of water from the laundry****Definition statement**

This place covers:

Control methods or control arrangements concerning the laundry-spinning phase.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

D06F 33/62**of draining****Definition statement**

This place covers:

Control methods or control arrangements concerning the draining phase.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Liquid supply or discharge arrangements	D06F 39/08
Detecting faulty draining operations, e.g. filter blockage, faulty pump	D06F 39/082
Liquid discharge or recirculation arrangements, draining components	D06F 39/083

D06F 33/63

of air flow, e.g. blowing air during the washing process to prevent entanglement of the laundry

Definition statement

This place covers:

Control methods or control arrangements aiming at steering the airflow and having purposes different from pure drying.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - related to blowers or fans	D06F 2103/54
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - related to air ducts, e.g. position of flow diverters	D06F 2103/56
Systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers - airflow control means	D06F 2105/32

D06F 33/64

Unheated air

Definition statement

This place covers:

Control methods or control arrangements aiming to steer the airflow and having purposes different from pure drying, wherein the air is unheated.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - related to blowers or fans	D06F 2103/54
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - related to air ducts, e.g. position of flow diverters	D06F 2103/56
Systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers - air flow control means	D06F 2105/32

D06F 33/65

of conditioning or finishing phases, e.g. for smoothing or removing creases

Definition statement

This place covers:

Control methods or control arrangements for washer-dryers having the purpose of conditioning or finishing the laundry, e.g. using a laundry-conditioning agent like water, steam, perfume, starch.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Steam generating arrangements	D06F 39/40
Laundry conditioning arrangements	D06F 58/203
Steam generators per se	F22B 1/28

D06F 33/68

of the sequence of washing and drying operations

Definition statement

This place covers:

Control methods or control arrangements for washer-dryers having the purpose of controlling the sequence of washing and drying operations.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Timing arrangements	D06F 34/06
Changing sequence of operational steps; carrying out additional operational steps; Modifying operational steps, e.g. by extending duration of steps	D06F 2105/52

D06F 33/69

Control of cleaning or disinfection of washer-dryer parts, e.g. of tubs

Definition statement

This place covers:

Control methods or control arrangements for cleaning or disinfecting washer-dryer parts, e.g. the condenser, air duct, etc.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Arrangements for disinfecting the tub or the drum	D06F 35/008
Lint collecting arrangements	D06F 58/22

Special rules of classification

Control methods for disinfecting the clothes or the washing fluid are generally classified in [D06F 35/00](#); [D06F 35/001](#); [D06F 35/004](#); [D06F 37/00](#); [D06F 39/00](#) and, if applicable, also in the group concerning the item on which the disinfecting device is mounted (e.g. the detergent drawer, the gasket, the water pump, the tub etc.).

Cleaning of the lint collecting arrangements is classified in [D06F 58/45](#).

Methods for disinfecting the tub or the drum are classified in [D06F 35/008](#).

D06F 33/70**Control of the operating time, e.g. reduction of overall operating time****Definition statement**

This place covers:

Control methods or control arrangements concerning to the operating time, e.g. reduction of overall operating time.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Timing arrangements	D06F 34/06
Control of the operating time for laundry dryers	D06F 58/46
Time settings	D06F 2101/14
Time, e.g. duration	D06F 2103/38
Remaining operation time; Remaining operational cycles	D06F 2105/56

D06F 33/72**Control of the energy or water consumption****Definition statement**

This place covers:

The control of individual operational steps concerning the reduction of energy or water consumption.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Arrangements for the recovery of water in laundry washing machines	D06F 39/20
Arrangements for the recovery of energy in laundry washing machines	D06F 39/30

D06F 33/74

**Responding to irregular working conditions, e.g. malfunctioning of pumps
(safety arrangements for washing machines [D06F 37/42](#))**

Definition statement

This place covers:

The control of individual operational steps concerning the prevention and early detection of potentially dangerous or abnormal working conditions, which might cause damage to the user and/or to the machine, e.g. clogging of the drain pump, water leaks, electric malfunctions, etc.

References**Limiting references**

This place does not cover:

Safety arrangements for washing machines	D06F 37/42
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
---	----------------------------

D06F 33/76

Preventing or reducing imbalance or noise

Definition statement

This place covers:

The control of individual operational steps for reducing and/or preventing imbalance or noise.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines with receptacles, e.g. perforated, having a rotary movement, e.g. oscillatory movement, the receptacle serving both for washing and centrifugally draining and having further drying means, e.g. using hot air	D06F 25/00
Control of washing machines characterised for preventing or reducing imbalance or noise	D06F 33/48
Arrangements for detecting or measuring imbalance	D06F 34/16
Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub, or casing; Preventing or damping vibrations	D06F 37/20
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a horizontal axis)	D06F 37/225

Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a vertical axis)	D06F 37/245
Parameters of unbalance or noise monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers	D06F 2103/26

D06F 34/00

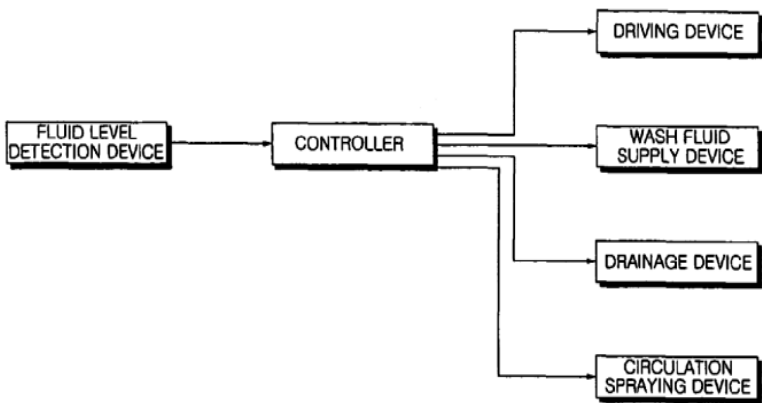
Details of control systems for washing machines, washer-dryers or laundry dryers

Definition statement

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers. See also definition statement and examples shown under [D06F 33/30](#) and [D06F 33/50](#).

Illustrative example of subject matter classified in this group.



D06F 34/04

Signal transfer or data transmission arrangements

Definition statement

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers, relating to wired signal transfer or data transmission arrangements.

D06F 34/05

for wireless communication between components, e.g. for remote monitoring or control

Definition statement

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers, relating to wireless signal transfer or data transmission arrangements, e.g. WIFI, Bluetooth, RF, NFC, optic, etc.

Illustrative example of subject matter classified in this group.

**D06F 34/06**

Timing arrangements

Definition statement

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers, concerning timing.

References**Informative references**

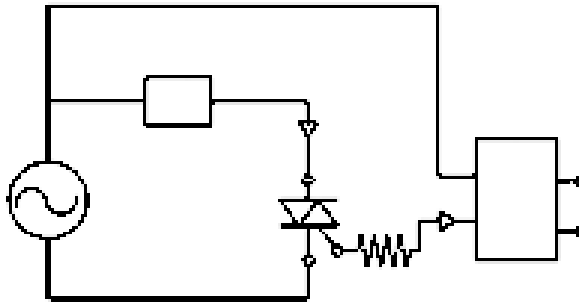
Attention is drawn to the following places, which may be of interest for search:

User input for the control of domestic laundry washing machines, washer-dryers or laundry dryers – time settings	D06F 2101/14
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - time, e.g. duration	D06F 2103/38
Systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers - starting machine operation, e.g. delayed start or re-start after power cut	D06F 2105/50
Systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers - changing sequence of operational steps; carrying out additional operational steps; modifying operational steps, e.g. by extending duration of steps	D06F 2105/52
Systems or parameters controlled or affected by the control systems of washing machines, washer-dryers or laundry dryers - remaining operation time; remaining operational cycles	D06F 2105/56

D06F 34/08**Control circuits or arrangements thereof****Definition statement**

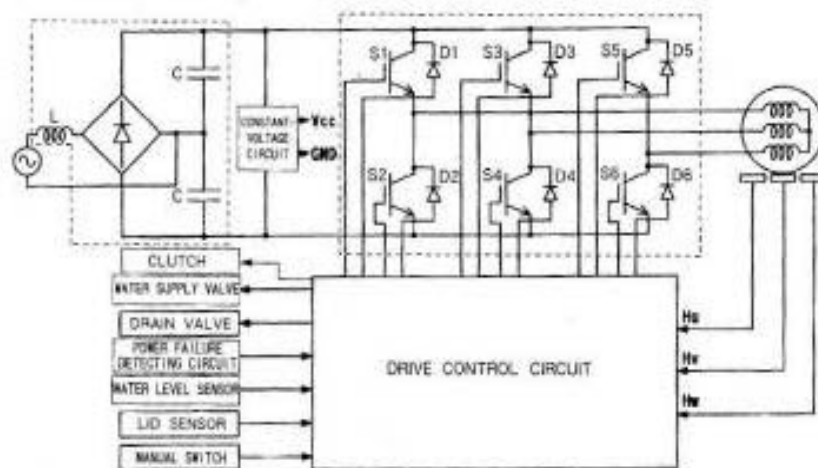
This place covers:

Illustrative example of subject matter classified in this group.

**D06F 34/10****Power supply arrangements, e.g. stand-by circuits****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.



D06F 34/14**Arrangements for detecting or measuring specific parameters****Definition statement**

This place covers:

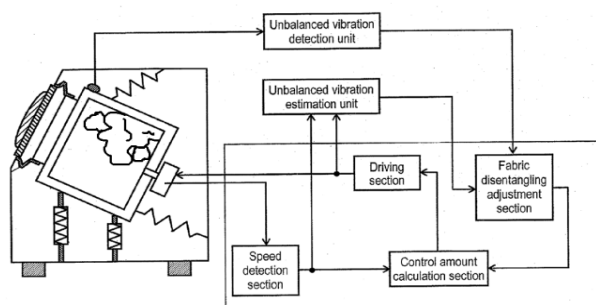
Details of control systems for washing machines, washer-dryers or laundry dryers relating to the detection of specific parameters.

D06F 34/16**Imbalance****Definition statement**

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers relating to the detection of imbalance.

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

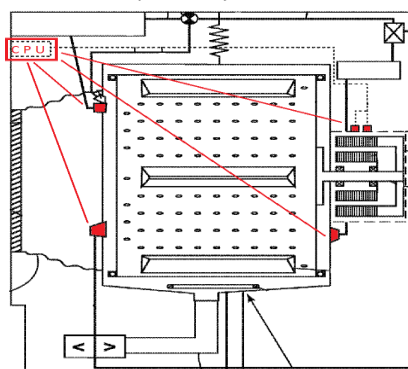
Control of washing machines characterised for preventing or reducing imbalance or noise	D06F 33/48
Control of washer-dryers for preventing or reducing imbalance or noise	D06F 33/76
Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub, or casing; Preventing or damping vibrations	D06F 37/20
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a horizontal axis)	D06F 37/225
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets (in machines with a receptacle rotating or oscillating about a vertical axis)	D06F 37/245
Parameters of unbalance or noise monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers	D06F 2103/26

D06F 34/18**Condition of the laundry, e.g. nature or weight****Definition statement**

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers, relating to the detection of the condition of the laundry, comprising both the sensors and their control arrangements.

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

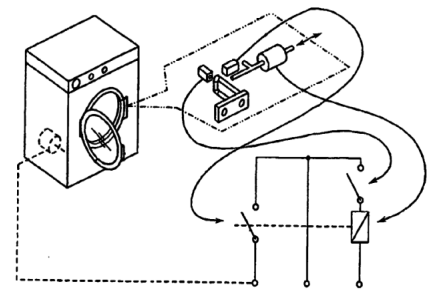
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - characteristics of laundry or load	D06F 2103/02
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - quantity, e.g. weight or variation of weight	D06F 2103/04
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - type or material	D06F 2103/06
Parameters monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers - humidity / temperature	D06F 2103/08 - D06F 2103/12

D06F 34/20**Parameters relating to constructional components, e.g. door sensors****Definition statement**

This place covers:

Details of control systems for washing machines, washer-dryers or laundry dryers, relating to the detection of specific parameters of constructional components of the appliance, e.g. checking the position of the door, lint filter, detergent drawer, etc.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Security means for doors of drums rotating about a horizontal or inclined axis	D06F 37/10
Security means for doors of drums rotating about a vertical axis	D06F 37/18
Security means for doors of tubs	D06F 37/28
Driving arrangements for automatic drum positioning	D06F 37/302
Safety arrangements, e.g. for stopping rotation of the receptacle upon opening of the casing door	D06F 37/42
Devices for adding soap or other washing agent	D06F 39/02
Filtering arrangements	D06F 39/10
Casings	D06F 39/12
Securing means for doors of casings	D06F 39/14
General details of domestic laundry dryers	D06F 58/20
Lint collecting arrangements	D06F 58/22
Opening or locking status of doors	D06F 2103/40

Special rules of classification

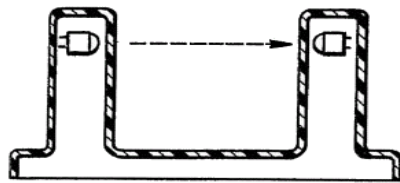
Details concerning safety arrangements are classified in [D06F 37/42](#); safety arrangements for preventing water damage in [D06F 39/081](#); preventing and responding to irregular working conditions in [D06F 33/47](#).

D06F 34/22**Condition of the washing liquid, e.g. turbidity****Definition statement**

This place covers:

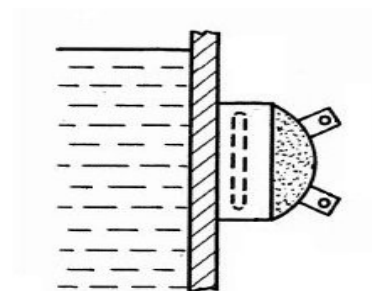
Details of control systems for washing machines or washer-dryers, relating to the detection of the condition of the washing liquid, e.g. devices for measuring and/or controlling the detergent concentration, water hardness, etc., comprising both the sensors and their control arrangements.

Illustrative example of subject matter classified in this group.

**D06F 34/24****Liquid temperature****Definition statement**

This place covers:

Details of control systems for washing machines or washer-dryers, relating to the detection of the temperature of the washing liquid, e.g. thermostats, etc., comprising both the sensors and their control arrangements.



Illustrative example of subject matter classified in this group.

References**Informative references**

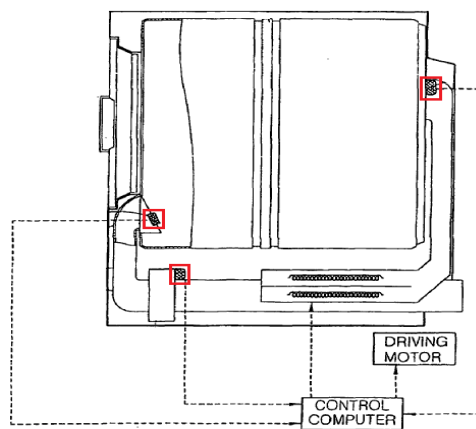
Attention is drawn to the following places, which may be of interest for search:

Temperature measuring arrangements for dishwashers	A47L 15/4287
--	------------------------------

D06F 34/26**Condition of the drying air, e.g. air humidity or temperature****Definition statement***This place covers:*

Details of control systems for washer-dryers or laundry dryers, relating to the detection of the condition of the drying air, e.g. humidity sensors, temperature sensors, pressure sensors, etc., comprising both the sensors and their control arrangements.

Illustrative example of subject matter classified in this group.

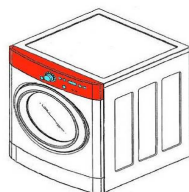
**D06F 34/28**

**Arrangements for program selection, e.g. control panels therefor;
Arrangements for indicating program parameters, e.g. the selected program or
its progress**

Definition statement*This place covers:*

Details of control systems for washer-dryers or laundry dryers, relating to arrangements for program selection and/or visualization.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Drying processes in domestic laundry dryers	D06F 58/30
Alarm-clock-controlled mechanisms for coffee or tea making apparatus	A47J 31/52
Arrangements for program selection in dishwashers, e.g. control panels	A47L 15/4293
Control devices for stoves, e.g. control panels	F24C 7/082
Arrangement or mounting of control or safety devices for refrigerators	F25D 29/00
Indicating or measuring liquid level, in general	G01F 23/00
Light guides	G02B 6/00
Electric programme-control systems in general	G05B 19/02
Electric programme-control systems using selector switches	G05B 19/10
Input and output arrangements for electrical digital data processing	G06F 3/00
Digitisers, e.g. for touch screens or touch pads, characterised by the transducing means	G06F 3/041
Arrangements for transmitting signals characterised by the use of a wireless link	G08C 17/00
Circuit arrangements for providing remote indication of network conditions	H02J 13/00
Optical indicating means for TV sets and radios	H03J 1/04

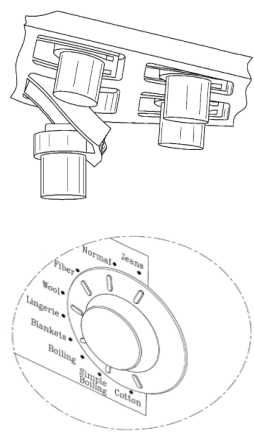
D06F 34/30

characterised by mechanical features, e.g. buttons or rotary dials

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



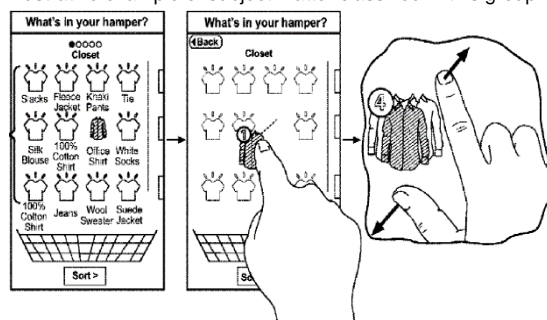
D06F 34/32

characterised by graphical features, e.g. touchscreens

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

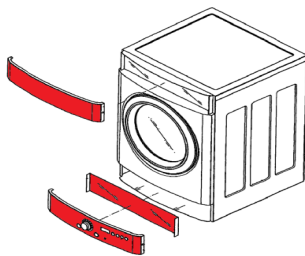
**D06F 34/34**

characterised by mounting or attachment features, e.g. detachable control panels or detachable display panels

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**D06F 35/00**

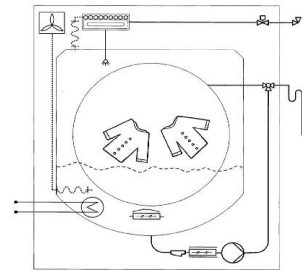
Washing machines, apparatus, or methods not otherwise provided for

Definition statement

This place covers:

Washing machines implementing washing concepts and/or characterised by technical features which cannot be classified elsewhere.

Illustrative example of subject matter classified in this group.



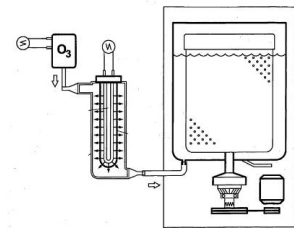
D06F 35/001

{using ozone}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Sterilizing arrangements using ozone	A47L 15/424
Preparation of ozone in general	C01B 13/10

D06F 35/002

{using bubbles}

Definition statement

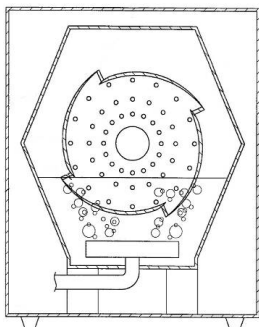
This place covers:

Washing machines, wherein the washing action is performed by gas bubbles getting in contact with the articles to be washed.

D06F 35/002 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.

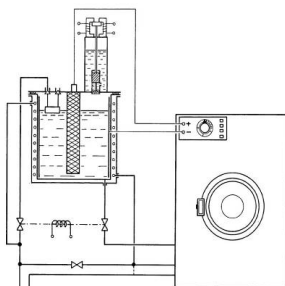


D06F 35/003
{using electrochemical cells}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

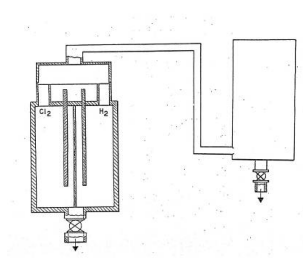
Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Sterilizing arrangements using electrochemical cells.	A47L 15/424
---	-----------------------------

D06F 35/004**{using chlorine generators}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

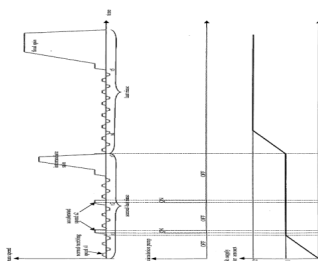
**D06F 35/005****{Methods for washing, rinsing or spin-drying}****Definition statement***This place covers:*

Washing methods (per se) explicitly comprising a washing, a rinsing, and a spinning phase.

D06F 35/006**{for washing or rinsing only}****Definition statement***This place covers:*

Washing methods (per se) explicitly related to the washing and rinsing phases only.

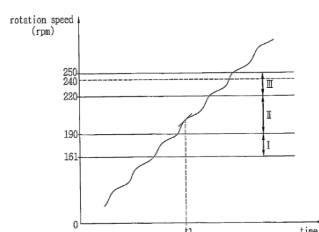
Illustrative example of subject matter classified in this group.



D06F 35/007**{for spin-drying only}****Definition statement***This place covers:*

Washing methods (per se) related to the spinning phase only.

Illustrative example of subject matter classified in this group.

**Special rules of classification**

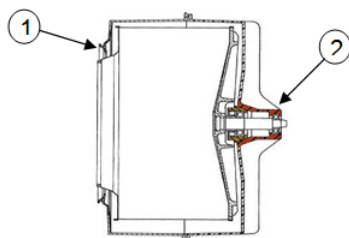
Pure hardware should not be classified here.

D06F 35/008**{for disinfecting the tub or the drum}****Special rules of classification**

Methods for disinfecting the clothes or the washing fluid should not be classified here.

D06F 37/00**Details specific to washing machines covered by groups [D06F 21/00](#) - [D06F 25/00](#)****Definition statement***This place covers:*

Bearing supports (see figure - reference sign (1)).



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of more general application	D06F 39/00
Details concerning drying only	D06F 58/00

D06F 37/02

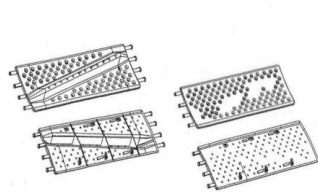
Rotary receptacles, e.g. drums

Definition statement

This place covers:

Details of the drum surface for drums having both horizontal and vertical axes.

Illustrative example of subject matter classified in this group.



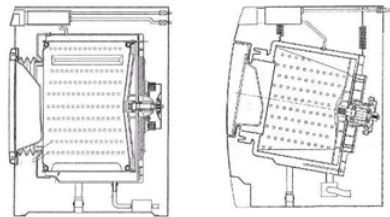
D06F 37/04

adapted for rotation or oscillation about a horizontal or inclined axis

Definition statement

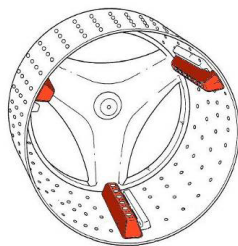
This place covers:

Illustrative example of subject matter classified in this group.



D06F 37/06**Ribs, lifters, or rubbing means forming part of the receptacle****Definition statement***This place covers:*

Illustrative example of subject matter classified in this place:

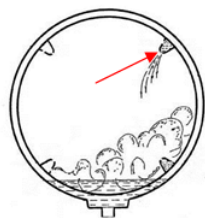
**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Drums adapted for rotation about a vertical axis, characterised by the shape of the side wall	D06F 37/12
Construction of the inside surface of the drum	D06F 37/14
Projections or partitions	D06F 37/16

D06F 37/065**{ribs or lifters having means for circulating the washing liquid}****Definition statement***This place covers:*

Ribs/lifters comprising water passages (e.g. holes).

Illustrative example of subject matter classified in this group.

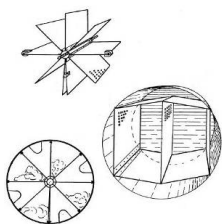


D06F 37/08**Partitions****Definition statement**

This place covers:

Shoe holders.

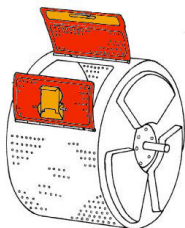
Illustrative example of subject matter classified in this group.

**D06F 37/10****Doors; Securing means therefor****Definition statement**

This place covers:

Only doors for "top-loaders" (e.g. drum doors).

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Doors hinged to the tub	D06F 37/28.
-------------------------	-----------------------------

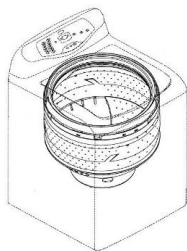
D06F 37/12

adapted for rotation or oscillation about a vertical axis

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



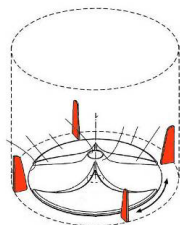
D06F 37/14

Ribs or rubbing means forming part of the receptacle

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



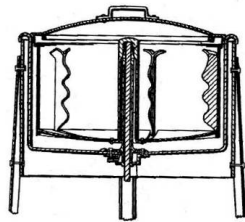
D06F 37/145

{ribs or lifters having means for circulating the washing liquid}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



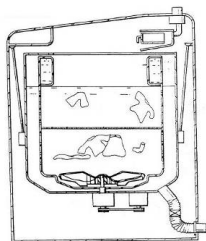
D06F 37/16

Partitions

Definition statement

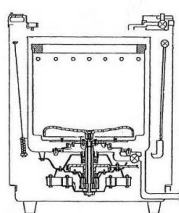
This place covers:

Illustrative example of subject matter classified in this group.

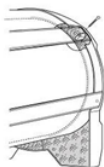


D06F 37/18**Doors or covers; Securing means therefor****Definition statement***This place covers:*

Drum doors for drums having a vertical axis.

**D06F 37/20****Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub or casing; Preventing or damping vibrations****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Counterweights mounted to the tub or mountings therefor	D06F 37/265
Vibration dampers having rectilinearly moving Friction surfaces;	F16F 7/08
Vibration dampers of the cylinder piston type.	F16F 7/09

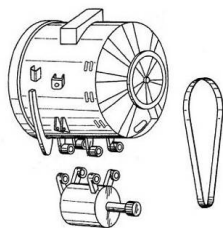
D06F 37/206

{Mounting of motor}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 37/22

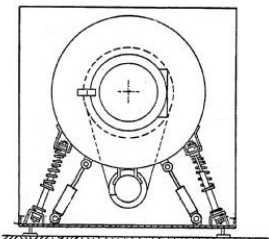
in machines with a receptacle rotating or oscillating about a horizontal axis

Definition statement

This place covers:

Dampers mounting and configuration.

Illustrative example of subject matter classified in this group.



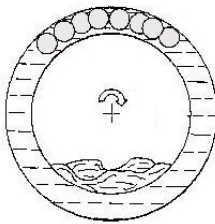
D06F 37/225

{Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Correcting or balancing weights by using rolling bodies

F16F 15/363

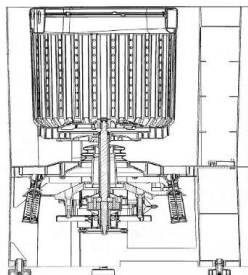
D06F 37/24

in machines with a receptacle rotating or oscillating about a vertical axis

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



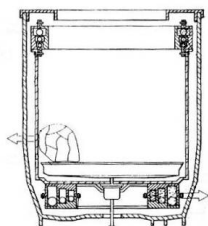
D06F 37/245

{Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**D06F 37/26****Casings; Tubs****Definition statement**

This place covers:

Tubs (finished products).

References**Limiting references**

This place does not cover:

Casings	D06F 39/12
---------	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Details of the tub	A47L 15/4246
----------------------------------	------------------------------

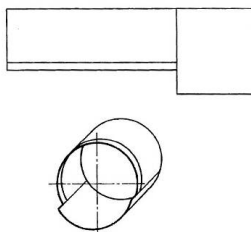
D06F 37/261

{Tubs made by a specially selected manufacturing process or characterised by their assembly from elements}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



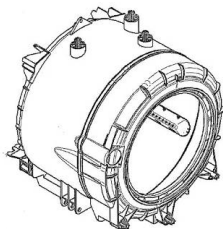
D06F 37/262

{made of plastic material, e.g. by injection moulding}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



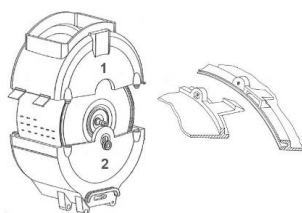
D06F 37/263

{assembled from at least two elements connected to each other; Connecting or sealing means therefor}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



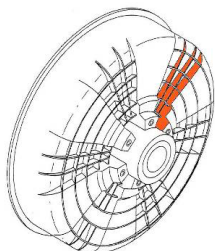
D06F 37/264

{Tubs provided with reinforcing structures, e.g. ribs, inserts, braces}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 37/265

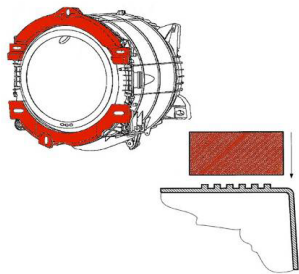
{Counterweights mounted to the tub; Mountings therefor}

Definition statement

This place covers:

Water pockets.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polymeric concrete compositions	C04B 26/06
Mortars or concrete compositions	C04B 28/00

Special rules of classification

Bearings and bearing supports are not to be classified here.

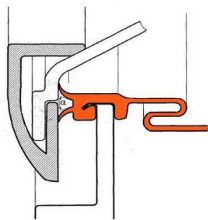
D06F 37/266

{Gaskets mounted between tub and casing around the loading opening}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 37/267

{Tubs specially adapted for mounting thereto components or devices not provided for in preceding subgroups ([D06F 37/206](#) takes precedence)}

Definition statement

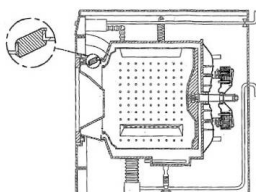
This place covers:

Special components mounted to the tub.

D06F 37/267 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.

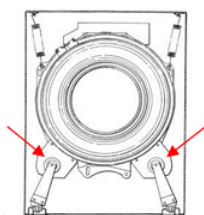


D06F 37/268
{for suspension devices}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

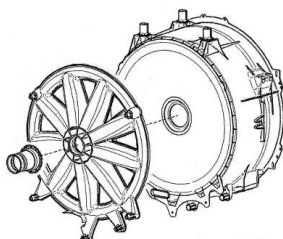


D06F 37/269
{for the bearing of the rotary receptacle}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 37/28

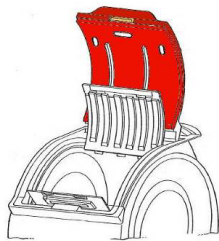
Doors; Security means therefor

Definition statement

This place covers:

Doors hinged to the tub.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Doors hinged to the casing.

D06F 37/30

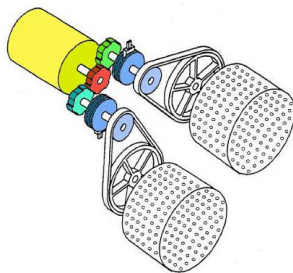
Driving arrangements (control circuits or arrangements [D06F 34/08](#))

Definition statement

This place covers:

Gears and motors (pure hardware).

Illustrative example of subject matter classified in this group.



References**Limiting references**

This place does not cover:

Control circuits or arrangements	D06F 34/08
----------------------------------	----------------------------

D06F 37/302

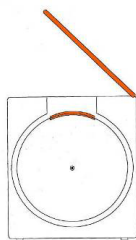
{Automatic drum positioning}

Definition statement

This place covers:

Automatic drum positioning devices for top-loaders, wherein the drum doors are aligned with the casing door in order to empty the drum.

Illustrative example of subject matter classified in this group.

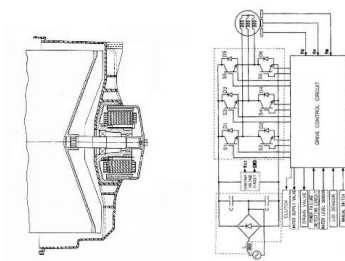
**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Electric components	H02K 11/21
Motors or generators.	H02K 29/08

D06F 37/304**{Arrangements or adaptations of electric motors}****Definition statement***This place covers:*

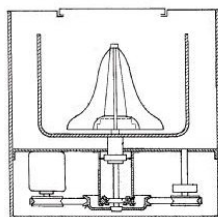
Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Electric motors as such;	H02K 7/14
Combination of a motor and a further component, e.g. a circuit.	H02K 11/00

D06F 37/308**{Hydraulic or pneumatic speed control; Arrangements or adaptations of hydraulic or pneumatic motors}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.



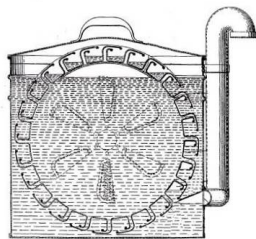
D06F 37/32

for rotating the receptacle at one speed only {([D06F 37/304](#), [D06F 37/308](#) take precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



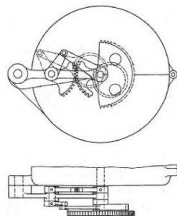
D06F 37/34

in opposite directions, e.g. oscillating

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



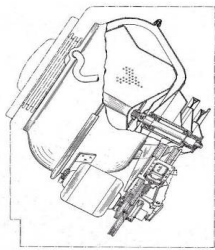
D06F 37/36

for rotating the receptacle at more than one speed {([D06F 37/304](#), [D06F 37/308](#) take precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



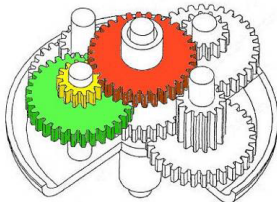
D06F 37/38

in opposite directions

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



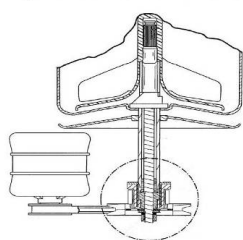
D06F 37/40

for driving the receptacle and an agitator or impeller, e.g. alternatively
{{(D06F 37/304, D06F 37/308 take precedence)}}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines having receptacles,stationary for washing purposes,with agitators therein contacting the articles being washed	D06F 13/00
Washing machines having receptacles,stationary for washing purposes, wherein the washing action is effected solely by circulation or agitation of the washing liquid	D06F 17/00

D06F 37/42

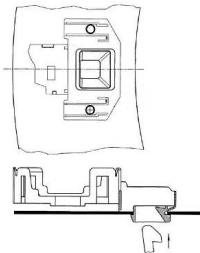
Safety arrangements, e.g. for stopping rotation of the receptacle upon opening of the casing door

Definition statement

This place covers:

- Safety devices for avoiding leakage;
- Door locks for all kind of washing machines.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Automatic drum positioning	D06F 37/302
Door locks for dishwashers	A47L 15/4259

D06F 39/00

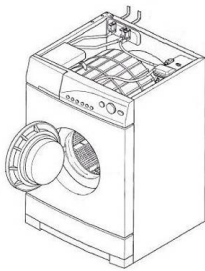
Details of washing machines not specific to a single type of machines covered by groups [D06F 9/00](#) - [D06F 27/00](#) (control of washing machines [D06F 33/00](#), [D06F 34/00](#))

Definition statement

This place covers:

General details of washing machines, i.e. details that can be applied to several types of the machines covered by groups [D06F 9/00](#) - [D06F 27/00](#)

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Control of operations performed in washing machines	D06F 33/00
Details of control systems for washing machines	D06F 34/00

Special rules of classification

Details of washing machines specifically adapted to a single type of the machines covered by groups [D06F 9/00](#) - [D06F 27/00](#) are covered by the group corresponding to the machine type.

D06F 39/001

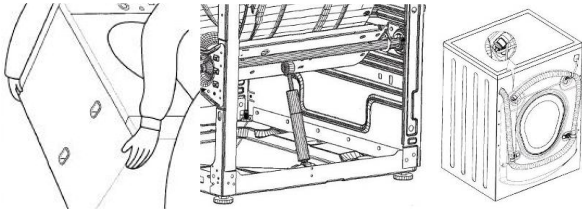
**{Arrangements for transporting, moving, or setting washing machines;
Protective arrangements for use during transport (transport in general [B65](#))}**

Definition statement

This place covers:

Mechanical means for temporarily fixing the suspended part of the washing machine (e.g. the tub) to its stationary part (e.g. the frame).

Illustrative example of subject matter classified in this group.



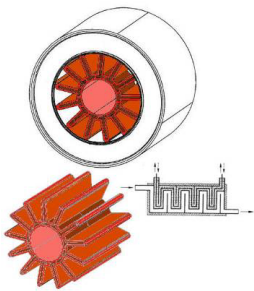
D06F 39/006 (Frozen)

{Recovery arrangements, e.g. for the recovery of energy or water}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

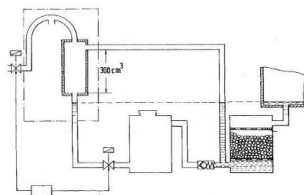
Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Recovery arrangements for the recovery of energy or water.	A47L 15/4291
--	------------------------------

D06F 39/007**{Arrangements of water softeners}****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

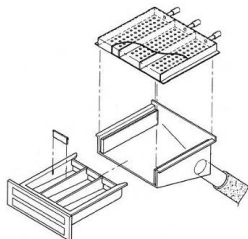
Dishwashers / Water softeners	A47L 15/4229
Dishwashers / Details of the salt container	A47L 15/4231

D06F 39/02**Devices for adding soap or other washing agents****Definition statement**

This place covers:

Multiple dosing systems.

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Devices for adding cleaning agents	A47L 15/44
--	----------------------------

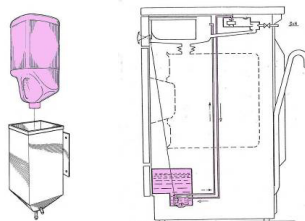
D06F 39/022

{in a liquid state ([D06F 39/024](#) takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Devices for adding cleaning agents in the form of liquids.	A47L 15/4418
--	------------------------------

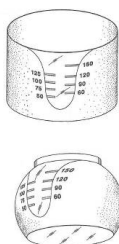
D06F 39/024

{mounted on the agitator or the rotating drum; Free body dispensers}

Definition statement

This place covers:

- Laundry balls for clothes dryers;
- Test sheets for testing the washing performance;
- Colour catcher sheets.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Domestic laundry dryers / Laundry conditioning arrangements	D06F 58/203
---	-----------------------------

Dishwashers / Detachable devices	A47L 15/4445
Free body dispensers	C11D 17/046

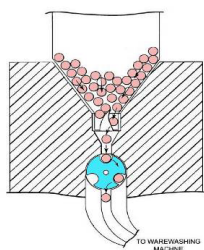
D06F 39/026

{the powder or tablets being added directly, e.g. without the need of a flushing liquid}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

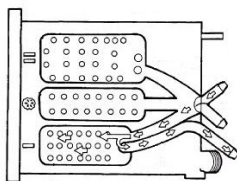
Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Devices for adding cleaning agents	A47L 15/44
Dishwashers / Devices for adding cleaning agents by tipping containers;	A47L 15/4409
Detergent tablets	C11D 17/0039
Detergent tablets	C11D 17/0073

D06F 39/028**{Arrangements for selectively supplying water to detergent compartments}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 39/04****Heating arrangements****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Dishwashers / water-heater arrangements	A47L 15/4285
---	------------------------------

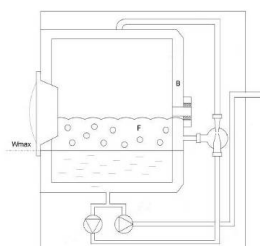
Special rules of classificationSteam devices specifically designed for washing machines have to be classified in [D06F 39/40](#) only.

D06F 39/06**Arrangements for preventing or destroying scum****Definition statement**

This place covers:

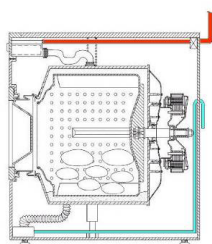
Sensors.

Illustrative example of subject matter classified in this group.

**D06F 39/08****Liquid supply or discharge arrangements (supply of soap or other washing agents [D06F 39/02](#))****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Supply of soap or other washing agents	D06F 39/02
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Water supply / recirculation arrangements	A47L 15/4214
---	------------------------------

Sensors	G01M 3/3245 , G01M 3/186 , G05D 7/01
---------	---

D06F 39/081

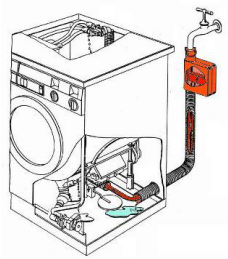
{Safety arrangements for preventing water damage}

Definition statement

This place covers:

Water stopping devices (safety devices mounted to the tap).

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Safety arrangements for preventing water damage	A47L 15/421
Investigating fluid-tightness of structures / by detecting presence of fluid at the leakage point	G01M 3/04

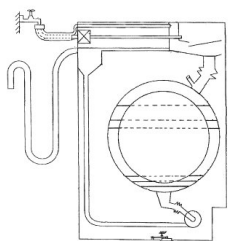
D06F 39/082

{detecting faulty draining operations, e.g. filter blockage, faulty pump}

Definition statement

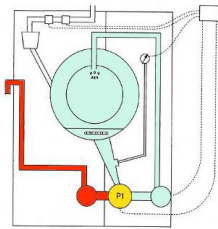
This place covers:

Illustrative example of subject matter classified in this group.



D06F 39/083**{Liquid discharge or recirculation arrangements}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

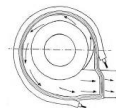
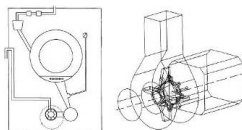
**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Control of flow / without auxiliary power

[G05D 7/01](#)**D06F 39/085****{Arrangements or adaptations of pumps}****Definition statement***This place covers:*

Pumps specially adapted for washing machines.

Illustrative example of subject matter classified in this group.



References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Dishwashers / Recirculation or discharge pumps
--

A47L 15/4225

D06F 39/086

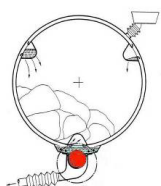
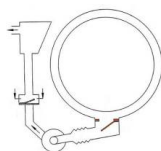
{Arrangements for avoiding detergent wastage in the discharge conduit}

Definition statement

This place covers:

Non-return valves (e.g. ball or flap valves).

Illustrative example of subject matter classified in this group.

**References****Informative references**

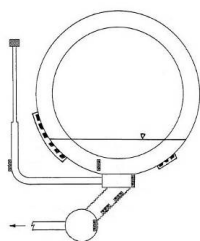
Attention is drawn to the following places, which may be of interest for search:

Valves in general

F16K

D06F 39/087**{Water level measuring or regulating devices}****Definition statement***This place covers:*

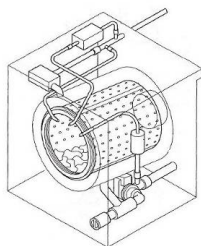
Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

From separate hot and cold water inlets	D06F 2105/04
Dishwashers / Water level measuring devices	A47L 15/4244

D06F 39/088**{Liquid supply arrangements}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

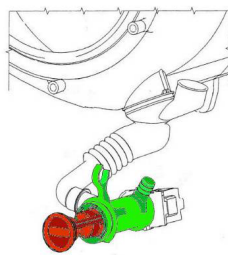
Dishwashers, Water supply, recirculation arrangements	A47L 15/4214
---	------------------------------

D06F 39/10**Filtering arrangements****Definition statement**

This place covers:

Filters disposed in the water circuit.

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

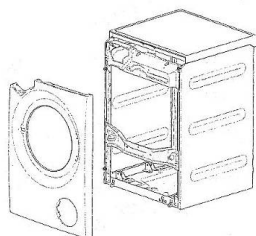
Dishwashers / Water filters;	A47L 15/4202
Dishwashers / Flat filters	A47L 15/4204
Dishwashers / Tubular filters	A47L 15/4206
Dishwashers / Filters / Arrangements for avoiding clogging	A47L 15/4208

D06F 39/12**Casings; Tubs****Definition statement**

This place covers:

Casings.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tubs	D06F 37/26
Kitchen cabinets / Worktops	A47B 77/022
Dishwasher / Details of the casing	A47L 15/4251
Domestic plumbing installations / Sinks	E03C 1/184

D06F 39/125

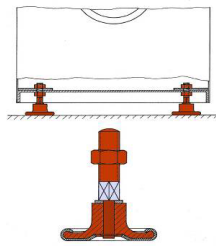
{Supporting arrangements for the casing, e.g. rollers or legs}

Definition statement

This place covers:

Pedestals.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Furniture / Adjustable feet;	A47B 91/02
Furniture / Adjustable feet having screw means;	A47B 91/022
Dishwasher / details of the casing / Rollers or supporting legs	A47L 15/4253
Machine casings / Attaching supporting legs on foundations	F16M 7/00
Legs or bases	FTERM-3B155/DA13

D06F 39/14

Doors or covers; Securing means therefor

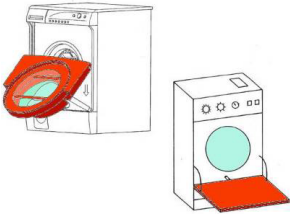
Definition statement

This place covers:

- Doors hinged to the casing for both top- and front-loaders;
- Door hinges;

- Door locks.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Doors hinged to the drum	D06F 37/10
Doors hinged to the tub	D06F 37/28
Dishwashers / Details of the casing / Locks	A47L 15/4259
Dishwashers / Details of the casing / Hinges	A47L 15/4261

D06F 39/20

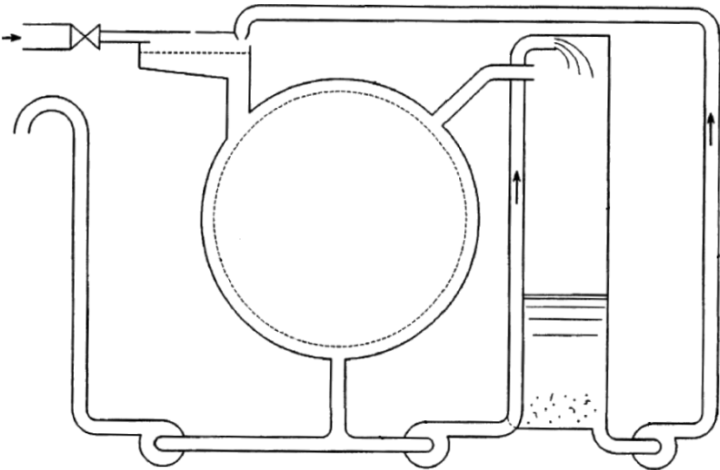
Arrangements for water recovery

Definition statement

This place covers:

Arrangements for the recovery of water used in washing machines, e.g. water storage means or waste water treatment.

Illustrative example of subject matter classified in this group:



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Recovery arrangements for the recovery of energy or water in dishwashers	A47L 15/4291
--	------------------------------

D06F 39/30

Arrangements for energy recovery

Definition statement

This place covers:

Arrangements for the recovery of energy used in washing machines, including thermal energy, potential energy, kinetic energy or electric energy.

References

Informative references

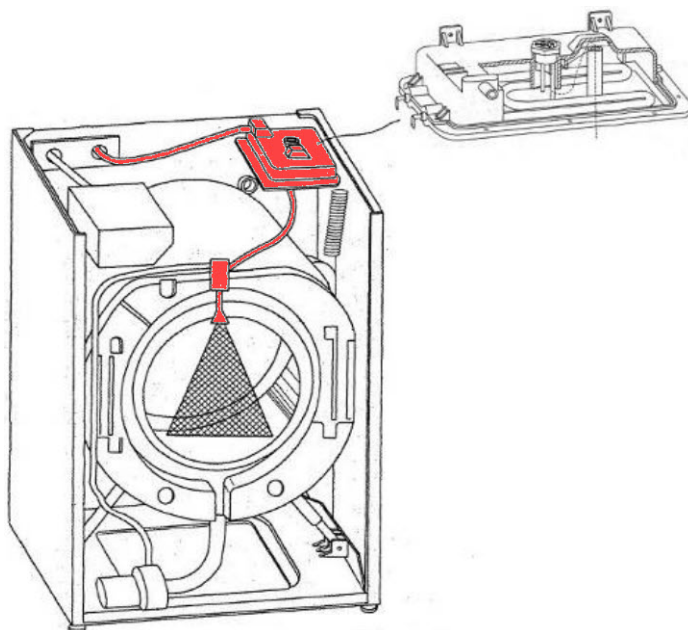
Attention is drawn to the following places, which may be of interest for search:

Recovery arrangements for the recovery of energy or water in dishwashers	A47L 15/4291
--	------------------------------

D06F 39/40**Steam generating arrangements****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group:



The drawing shows a washing machine provided with a steam generating equipment in the top-right rear corner. It is connected to the washing tub and can provide a spray of steam thereto. An enlarged drawing of the steam generating equipment is provided.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

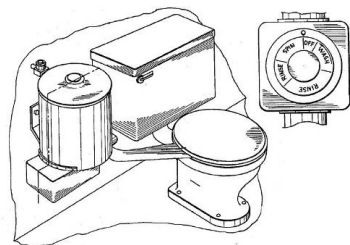
Methods of steam generation in boilers heated electrically with water in reservoirs	F22B 1/284
---	----------------------------

D06F 41/00**Rinsing apparatus****Definition statement**

This place covers:

Implements for rinsing and squeezing soiled reusable cloth diapers.

Illustrative example of subject matter classified in this group.



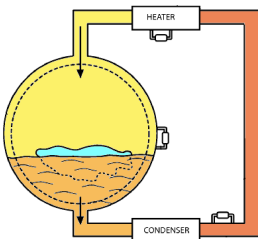
D06F 43/00

Dry-cleaning apparatus {or methods} using volatile solvents
([D06F 9/00](#) - [D06F 41/00](#) take precedence)

Definition statement

This place covers:
Industrial dry-cleaning machines and dry-cleaning methods.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Washing machines	D06F 9/00 – D06F 41/00
------------------	--

Informative references

Attention is drawn to the following places, which may be of interest for search:

CO2 cleaning	B08B 7/0021
--------------	-----------------------------

D06F 43/002

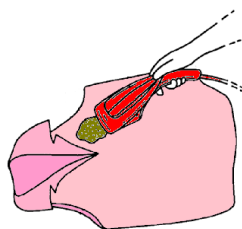
{Spotting apparatus}

Definition statement

This place covers:

Industrial and/or household handheld spot-removing devices

Illustrative example of subject matter classified in this group.



D06F 43/005

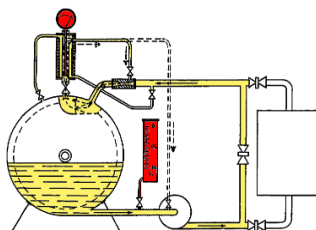
{Solvent condition control devices, e.g. humidity content}

Definition statement

This place covers:

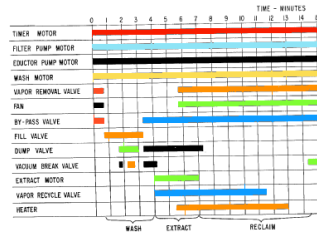
Solvent condition (e.g. humidity) detecting arrangement for industrial dry-cleaning machines.

Illustrative example of subject matter classified in this group.



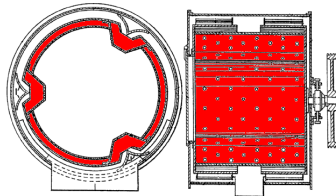
D06F 43/007**{Dry cleaning methods}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 43/02****having one rotary cleaning receptacle only****Definition statement***This place covers:*

Industrial dry-cleaning machines comprising a single rotary cleaning receptacle.

Illustrative example of subject matter classified in this group.

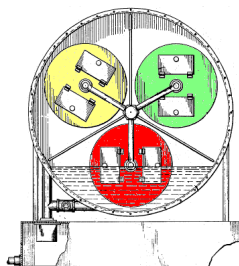
**D06F 43/04****having more than one rotary cleaning receptacle****Definition statement***This place covers:*

Industrial dry-cleaning machines comprising more than one rotary cleaning receptacle.

D06F 43/04 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



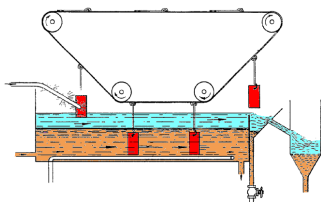
D06F 43/06

wherein the articles to be cleaned are passed through a cleaning chamber or bath

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 43/08

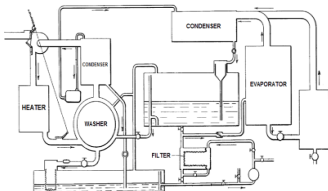
Associated apparatus for handling and recovering the solvents

Definition statement

This place covers:

Solvent recovery devices for industrial dry cleaning machines, wherein the recovery device lies in a separate structure with respect to the dry cleaning machine.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Separate apparatus for purifying dry-cleaning solvents
--

B01D

D06F 43/081

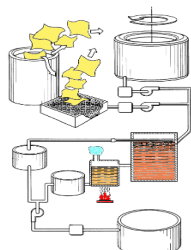
{Reclaiming or recovering the solvent from a mixture of solvent and contaminants, e.g. by distilling}

Definition statement

This place covers:

Solvent reclaiming or recovery arrangements for industrial dry-cleaning machines.

Illustrative example of subject matter classified in this group.



D06F 43/083

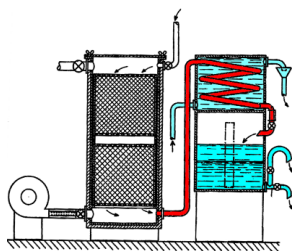
{Condensing arrangements}

Definition statement

This place covers:

Solvent condensing arrangements for industrial dry-cleaning machines.

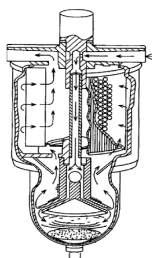
Illustrative example of subject matter classified in this group.



D06F 43/085**{Filtering arrangements; Filter cleaning; Filter-aid powder dispensers}****Definition statement***This place covers:*

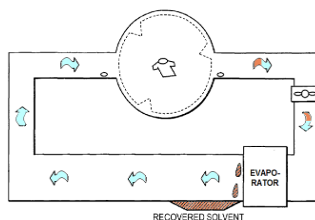
Solvent filtering / filter cleaning arrangements for industrial dry-cleaning machines.

Illustrative example of subject matter classified in this group.

**D06F 43/086****{Recovering the solvent from the drying air current}****Definition statement***This place covers:*

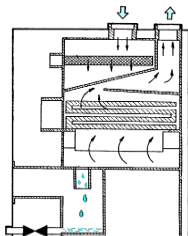
Industrial dry-cleaning machines comprising means for recovering the solvent from the drying air current.

Illustrative example of subject matter classified in this group.

**D06F 43/088****{Condensing arrangements}****Definition statement***This place covers:*

Industrial dry-cleaning machines comprising solvent condensing means for recovering the solvent from the drying air current.

Illustrative example of subject matter classified in this group.



D06F 45/00

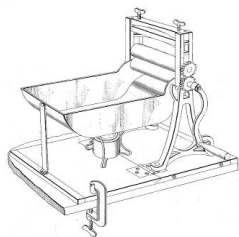
Wringing machines with two or more co-operating rollers; Similar cold-smoothing apparatus

Definition statement

This place covers:

Wringing machines comprising two or more rotary pressing bodies, suitable for removing excess liquids from rags or any equivalent absorbent and pliant items.

Illustrative example of subject matter classified in this group.



D06F 45/02

wherein the pressure is transmitted by spring means

Definition statement

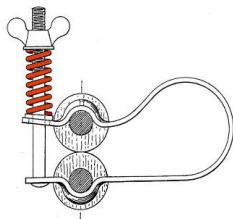
This place covers:

Wringing machines comprising two or more rotary pressing bodies, wherein pressure is exerted via spring means.

D06F 45/02 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



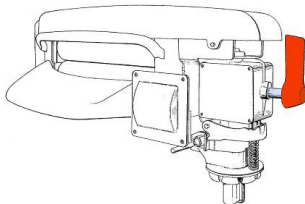
D06F 45/04
with hand-operated quick-release means

Definition statement

This place covers:

Wringing machines comprising two or more rotary pressing bodies and hand-operated pressure release means.

Illustrative example of subject matter classified in this group.



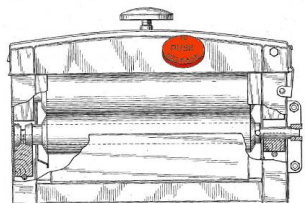
D06F 45/06
with automatically-operated quick-release means

Definition statement

This place covers:

Wringing machines comprising two or more rotary pressing bodies and automatically-operated pressure release means.

Illustrative example of subject matter classified in this group.



D06F 45/08

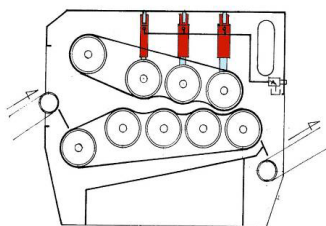
wherein the pressure is applied by fluid means

Definition statement

This place covers:

Wringing machines comprising two or more rotary pressing bodies, wherein pressure is exerted via e.g. hydraulic means.

Illustrative example of subject matter classified in this group.



D06F 45/10

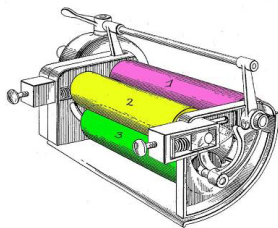
with three or more co-operating rollers

Definition statement

This place covers:

Wringing machines comprising three or more rotary pressing bodies

Illustrative example of subject matter classified in this group.



D06F 45/12

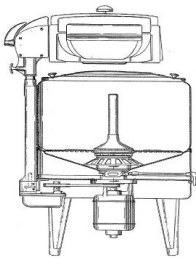
combined with washing machines

Definition statement

This place covers:

Wringing machines (comprising two or more rotary pressing bodies) permanently combined with a washing machine.

Illustrative example of subject matter classified in this group.



D06F 45/14

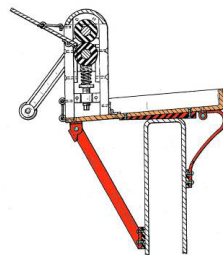
with means for removable attachment to washing machines, tables or other supports

Definition statement

This place covers:

Wringing machines (comprising two or more rotary pressing bodies) removeably attached to a washing machine, table or other support.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Combined with tables	A47B
----------------------	----------------------

D06F 45/16

Details

Definition statement

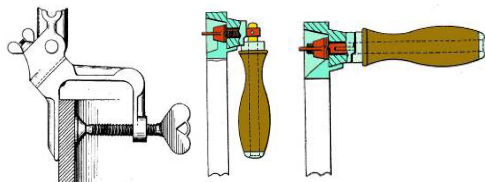
This place covers:

Constructive details belonging to wringing machines comprising two or more rotary pressing bodies.

D06F 45/16 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



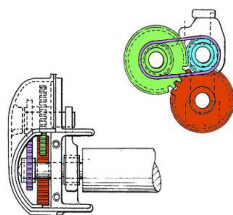
D06F 45/18

Driving or control arrangements for rotation of the rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



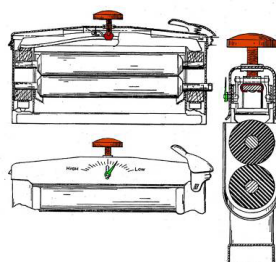
D06F 45/20

Toggle or other lever means for transmitting pressure to the rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



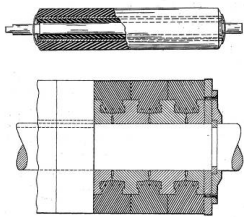
D06F 45/22

Rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



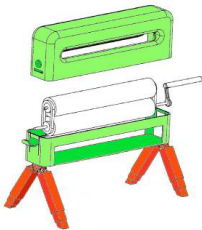
D06F 45/24

Frames guiding or housing the roller shafts; Stands for supporting the roller framework

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



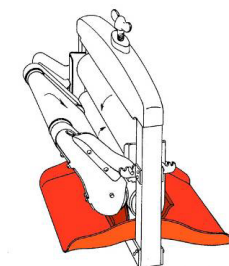
D06F 45/26

Draining boards; Feed or discharge boards; Stripping means

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



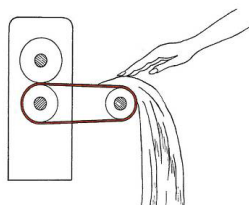
D06F 45/28

Belt arrangements for guiding the linen between the rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 47/00

Apparatus of the press type for expelling water from the linen

Definition statement

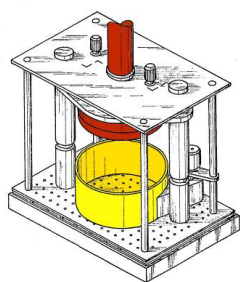
This place covers:

Industrial pressing machines for removing excess liquids from wet clothing.

D06F 47/00 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



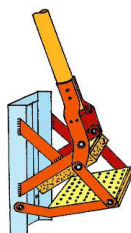
D06F 47/02
by a mechanically-actuated ram

Definition statement

This place covers:

Industrial pressing machines for removing excess liquids from wet clothing, comprising a mechanically-actuated ram.

Illustrative example of subject matter classified in this group.



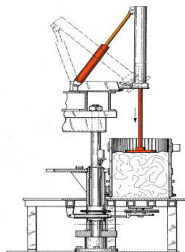
D06F 47/04
by a fluid-actuated ram

Definition statement

This place covers:

Industrial pressing machines for removing excess liquids from wet clothing, comprising a fluid-actuated ram.

Illustrative example of subject matter classified in this group.



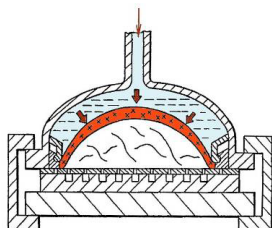
D06F 47/06
by a flexible diaphragm

Definition statement

This place covers:

Industrial pressing machines for removing excess liquids from wet clothing, comprising a flexible diaphragm.

Illustrative example of subject matter classified in this group.



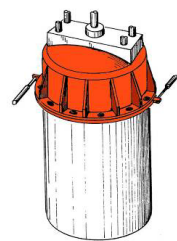
D06F 47/08
Covers; Securing means therefor

Definition statement

This place covers:

Covers and securing means therefor, specially adapted for sealing industrial pressing machines for removing excess liquids from wet clothing.

Illustrative example of subject matter classified in this group.



D06F 49/00

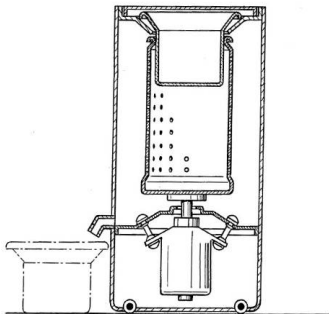
Domestic spin-dryers or similar spin-dryers not suitable for industrial use

Definition statement

This place covers:

Household spin-dryers (general aspects and/or constructive details) which cannot be classified under any hierarchically lower group.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Centrifuges in general	B04B
------------------------	----------------------

D06F 49/003

{Doors or covers; Safety arrangements}

Definition statement

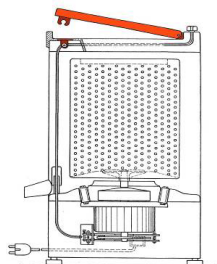
This place covers:

Doors, covers or safety arrangements for household spin-dryers.

D06F 49/003 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



D06F 49/006

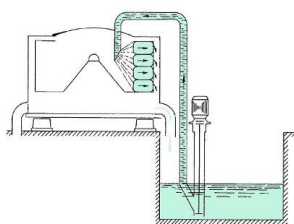
{Rinsing arrangements}

Definition statement

This place covers:

Water spraying arrangements for wetting the laundry during spinning, specially adapted for household spin-dryers.

Illustrative example of subject matter classified in this group.



D06F 49/02

Bowl construction

Definition statement

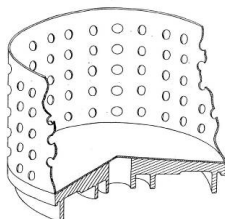
This place covers:

Constructional details of rotary drums for household spin-drying devices.

D06F 49/02 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



D06F 49/04

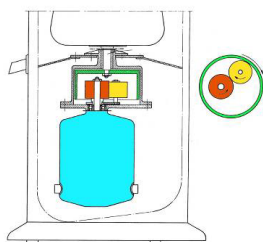
Bowl drive

Definition statement

This place covers:

Driving means of rotary drums for household spin-drying devices.

Illustrative example of subject matter classified in this group.



D06F 49/06

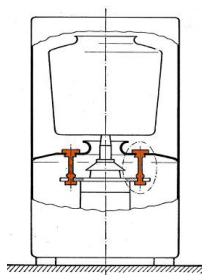
Mountings, e.g. resilient mountings, for the bowl or casings; Preventing or damping vibrations

Definition statement

This place covers:

Vibration damping arrangements for rotary drums of household spin-dryers.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Damping vibrations in general

F16F

D06F 49/08

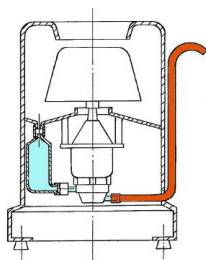
Liquid discharge arrangements

Definition statement

This place covers:

Water draining arrangements for household spin-dryers.

Illustrative example of subject matter classified in this group.



D06F 51/00

Apparatus for expelling or draining water from the linen, not provided for in the preceding groups

Definition statement

This place covers:

Hand operated apparatuses for removing excess liquids from wet clothing.

D06F 51/00 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



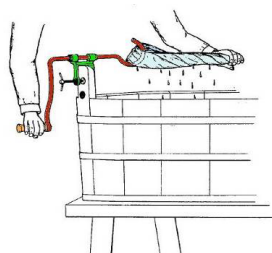
D06F 51/02

by twisting

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



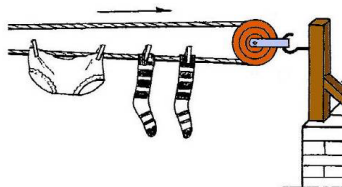
D06F 53/00

Clothes-lines; Supports therefor (drying frames incorporating clothes-lines
[D06F 57/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Drying frames incorporating clothes-lines	D06F 57/00
---	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Supports or holders specially adapted or mounted for storing and repeatedly paying-out and restoring lengths of lines	B65H 75/34
Ropes, cables	D07B

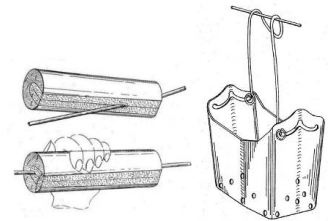
D06F 53/005

{Accessories, e.g. line cleaning devices, line protectors, clothes-pin holders}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 53/02

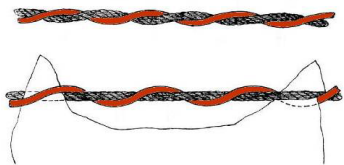
Clothes-lines

Definition statement

This place covers:

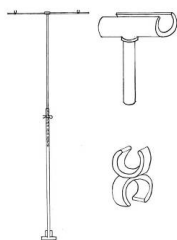
Any line, such as a piece of rope or cable, which is specifically designed and used for hanging clothes thereon for drying the clothes, the line being characterised by features that render the line particularly useful for suspending or hanging clothes thereon to dry.

Illustrative example of subject matter classified in this group:



D06F 53/04**Supports, e.g. poles, props for clothes-lines****Definition statement***This place covers:*

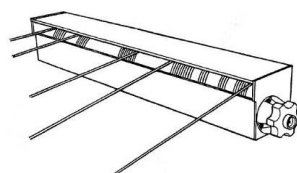
Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Poles in general	E04H
------------------	----------------------

D06F 53/045**{comprising means for storing the clothes-line}****Definition statement***This place covers:*

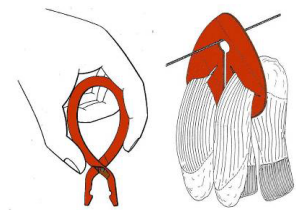
Illustrative example of subject matter classified in this group.



D06F 55/00**Clothes-pegs****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

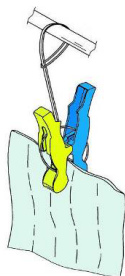
Attention is drawn to the following places, which may be of interest for search:

Devices for keeping articles together during laundering	D06F 95/008
Clothing hangers	A47G 25/14

D06F 55/02**with pivoted {independent} clamping members****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Friction grip fastenings / using pivoting jaws	F16B 2/10
--	---------------------------

D06F 57/00

Supporting means, other than simple clothes-lines, for linen or garments to be dried or aired (in combination with means for heating or positive air circulation [D06F 58/00](#); adapted to retain the shape of particular articles being dried [D06F 59/00](#))

References**Limiting references**

This place does not cover:

In combination with means for heating or positive air circulation	D06F 58/00
Adapted to retain the shape of particular articles being dried	D06F 59/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Clothing hangers, e.g. suit hangers	A47G 25/14
Pivotal connections / Arrangements for locking	F16C 11/10
Drying in general	F26B

Special rules of classification

for the classification in [D06F 57/00](#) and its subgroups:

- supporting means mounted on pillars ([D06F 57/02](#) and [D06F 57/04](#)) are not considered "stands". Hence, foldable supporting means mounted on pillars are not classified in the subgroups [D06F 57/08](#) or [D06F 57/10](#) relating to stands only;
- supporting means specially adapted for attachment to walls, ceilings, stoves, or other structures or objects ([D06F 57/12](#) and subgroups) are considered neither "mounted on pillars" nor "stands". Hence, such supporting means are only classified in [D06F 57/12](#) and subgroups even if foldable.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Stand	Supporting means, other than simple clothes-lines, for linen or garments to be dried or aired, comprising more than one leg for standing on the ground and being self-supporting, i.e. without being mounted to the ground or a further support.
-------	--

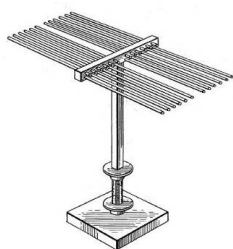
D06F 57/02

mounted on pillars, e.g. rotatably {(sockets or holders for poles or posts
[E04H 12/22](#))}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Sockets or holders for poles or posts	E04H 12/22
---------------------------------------	----------------------------

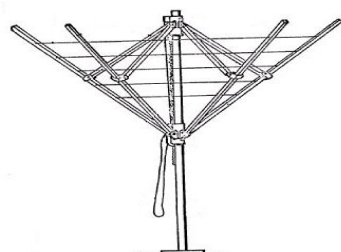
D06F 57/04

and having radial arms, e.g. collapsible

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Umbrellas Parasols	A45B 23/00 , A45B 25/00
--------------------	---

D06F 57/06

comprising vertical members connected by horizontal bars

Definition statement

This place covers:

Supporting means comprising more than one vertical member which are interconnected by horizontal bars. The vertical members must be truly vertical, i.e. perpendicular to the ground, in the operating position of the supporting means.

Illustrative example of subject matter classified in this group:



D06F 57/08

Folding stands ([D06F 57/06](#) takes precedence)

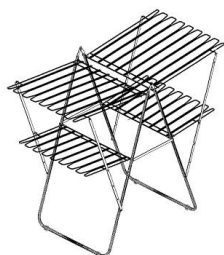
Definition statement

This place covers:

Folding stands, i.e. stands that are foldable for stowing.

This group covers in particular, but not exclusively, folding stands as defined above which are foldable about a horizontal axis.

Illustrative example of subject matter classified in this group:



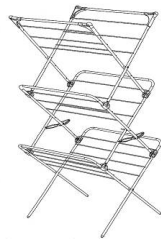
D06F 57/10
of the lazy-tongs type

Definition statement

This place covers:

Any foldable stand with intersecting leg members, the leg members being foldable using a mechanism involving at least two parallel folding axes in which the members intersect.

Illustrative example of subject matter classified in this group.

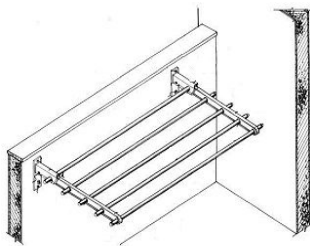


D06F 57/12
specially adapted for attachment to walls, ceilings, stoves, or other structures or objects

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Towel racks

[A47K 10/04](#)

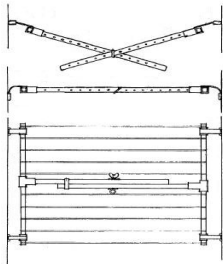
D06F 57/122

{for attachment by clamping between two retaining-planes}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



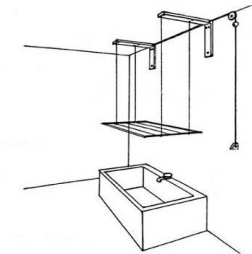
D06F 57/125

{for attachment to, or close to, the ceiling}

Definition statement

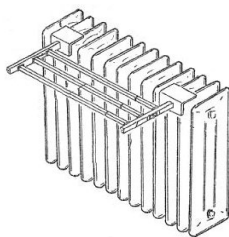
This place covers:

Illustrative example of subject matter classified in this group.



D06F 57/127**{for attachment or suspension to central heating radiators}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 58/00****Domestic laundry dryers****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

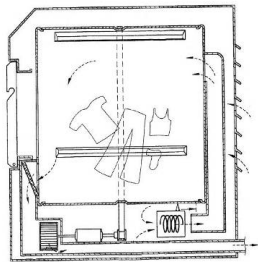
Drying in general

[F26B](#)**D06F 58/02****having dryer drums rotating about a horizontal axis****Definition statement***This place covers:*

Domestic laundry drier having a drier drum rotating about a horizontal axis in general.

For instance: a domestic laundry drier having a drier drum rotating about a horizontal axis defined by a particular arrangement of conducting air inside the laundry drier, this particular arrangement involving inter alia the drum.

An example of such a domestic laundry drier in [D06F 58/02](#) is:



D06F 58/04

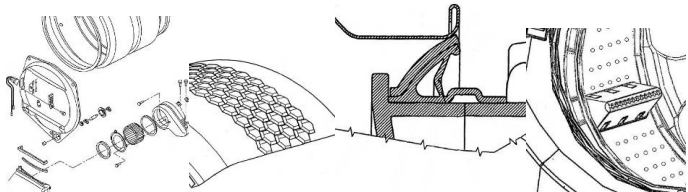
Details (controlling or regulating devices [D06F 34/00](#))

Definition statement

This place covers:

Details that are directly relating to the drier drum rotating about a horizontal axis of the domestic laundry drier.

Examples of such details of a domestic laundry drier in [D06F 58/04](#) include:



References

Limiting references

This place does not cover:

Controlling or regulating devices	D06F 34/00
-----------------------------------	----------------------------

Special rules of classification

In case an aspect of the detail falls also in [D06F 58/20](#) and its subgroups, i.e. this aspect of the detail is not restricted to laundry driers having a drum rotating about a horizontal axis, then also [D06F 58/20](#) or its relevant subgroup should be assigned.

For instance: a domestic laundry drier having a drier drum rotating about a horizontal axis and comprising an electric heating device specially shaped or adapted to the drier drum should be classified in both, [D06F 58/04](#) (aspect: specially shaped to the drier drum) and [D06F 58/26](#) (aspect: heating device).

D06F 58/06

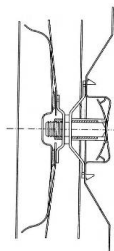
Mountings for the rotating drums

Definition statement

This place covers:

Any detail related to the mounting of the rotating drum, for instance bearings or supports of the rotating drum.

An example of a detail of a mounting for a rotating drum in [D06F 58/06](#) is:



D06F 58/08

Driving arrangements

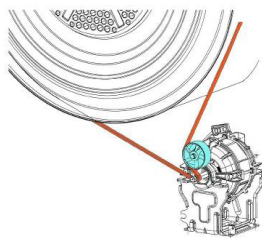
Definition statement

This place covers:

Device details or components of the domestic laundry drier directly related or linked to the driving arrangement of the drier drum.

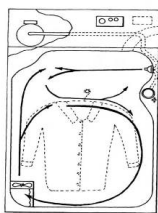
For instance: the motor, mounting and support of the motor, as well as details of the drive system such as belts and pulleys.

An example of such a details of a driving arrangement in [D06F 58/08](#) is:



D06F 58/10**Drying cabinets or drying chambers having heating or ventilating means****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

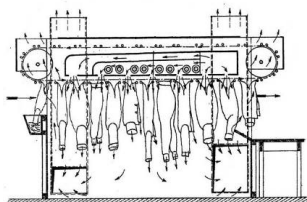
**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Clothes dryers having a rotating drum

[D06F 58/02](#)**D06F 58/12****having conveying means for moving clothes, e.g. along an endless track****Definition statement***This place covers:*

Conveying means for moving the clothes, for instance along an endless track, along a rotating screw, or back and forth

Illustrative example of subject matter classified in this group.

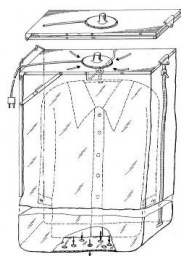


D06F 58/14**Collapsible drying cabinets; Wall mounted collapsible hoods****Definition statement**

This place covers:

Collapsible drying cabinets, such as collapsible and portable drying devices; Wall mounted collapsible hoods

Illustrative example of subject matter classified in this group.

**D06F 58/16****having heatable surfaces for contacting the laundry ([D06F 59/00](#) takes precedence)****Definition statement**

This place covers:

Domestic laundry driers having heatable surfaces for contacting the laundry, the domestic laundry drier being specifically designed for, and used as, domestic device for drying laundry.

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Supports adapted to retain the shape of particular articles being dried	D06F 59/00
---	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

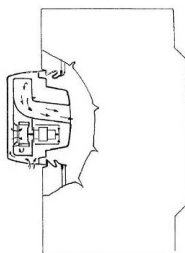
Towel racks having drying means	A47K 10/06
Radiators per se	F24D

D06F 58/18**Detachable or door-mounted drying arrangements for washing machines****Definition statement**

This place covers:

Drying arrangement which can be removably attached to a washing machine and which does not form part of the washing machine; door-mounted drying arrangement suitable for a washing machine, the drying arrangement being self-contained.

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Washing machines having receptacles, stationary for the washing purposes, and having further drying means	D06F 18/00
Washing machines with receptacles having a rotary movement, the receptacle serving both for washing and centrifugally draining and having further drying mean	D06F 25/00

D06F 58/20**General details of domestic laundry dryers ([D06F 59/00](#) takes precedence)****Definition statement**

This place covers:

General details of domestic laundry driers being relevant for all different type of domestic laundry driers.

For instance:

- vents or pipes or air valves used in domestic laundry dryers;

- fans or air blowing arrangement;
- air/air heat exchangers for heat exchange without condensation, e.g. heat exchanger for heat recovery;
- casing details specific to laundry driers.

References

Limiting references

This place does not cover:

Supports adapted to retain the shape of particular articles being dried	D06F 59/00
---	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Washing machines / casings	D06F 39/12
Washing machines / supporting arrangements for the casing	D06F 39/125
Washing machines / doors or covers; securing means thereof	D06F 39/14
Dishwashers / details of the casing	A47L 15/4251

Special rules of classification

In case the details or the components relate to an air/air heat exchanger which effects the condensation of moisture, only the subgroup [D06F 58/24](#) should be assigned (i.e. not [D06F 58/20](#) in addition).

D06F 58/203

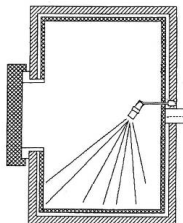
{Laundry conditioning arrangements}

Definition statement

This place covers:

Details of laundry conditioning devices or components in domestic laundry driers (e.g. free body dispensers or laundry balls specially adapted for releasing laundry conditioning agent during a drying cycle of a domestic laundry dryer) using a laundry conditioning agent (e.g. water, steam, perfume, starch) to be applied to the laundry.

An example of such a laundry conditioning arrangement in a domestic laundry drier may involve the injection of a laundry conditioning agent into the treatment chamber, as shown below:



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Free body dispensers for adding soap or other washing agents	D06F 39/024
Washing machines / Steam generating arrangements	D06F 39/40
Detergent compositions incorporated into a dispensing means, specially adapted for dry cleaning or laundry dryer related applications	C11D 17/047
Steam generators per se	F22B 1/28

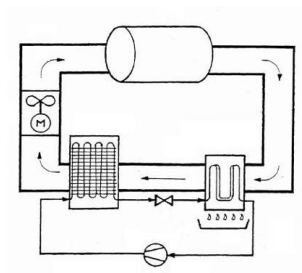
D06F 58/206

{Heat pump arrangements}

Definition statement

This place covers:

Heat pump arrangements for domestic laundry dryers, e.g. heat pumps of the compressor type, of the sorption type or using thermo-electric elements (e.g. Peltier / Seebeck devices).



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Heat pumps

Drying arrangements for dishwashers / using condensers	A47L 15/483
Air conditioning	F24F 5/0007
Combined heating and refrigeration systems	F25B 29/00
Heating and cooling	F25B 30/00
Drying by using sorbent;	F26B 21/083
Drying by condensing the moisture	F26B 21/086
Heating arrangements	F26B 23/00

Thermo-electric heat pumps (e.g. Peltier)

Air conditioning	F24F 5/0042
------------------	-----------------------------

Heating and cooling	F25B 11/00
Basic electric elements	H10N 10/00

D06F 58/22

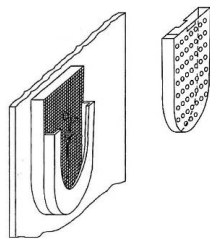
Lint collecting arrangements

Definition statement

This place covers:

Details of devices or components related or linked to the collection of lint or other particles, such as air filters and air filter cleaning devices.

Illustrative example of subject matter classified in this group.



D06F 58/24

Condensing arrangements

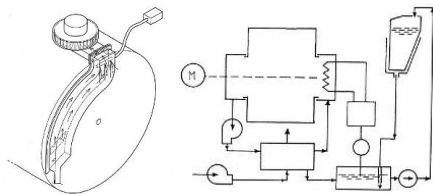
Definition statement

This place covers:

Details of devices or components related or linked to the collection of lint or other particles, such as air filters and air filter cleaning devices.

- condensers or the components effecting the condensation of moisture;
- condensation handling devices such as condensation pump and condensation container;
- details directly related to the condenser, such as components effecting the cleaning or enabling maintenance of the condenser.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Drying arrangements for dishwashers / using condensers	A47L 15/483
Heat exchangers	F28E , F28D

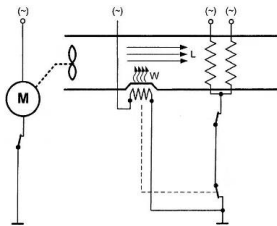
D06F 58/26

Heating arrangements, e.g. gas heating equipment ([D06F 58/18](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Detachable or door-mounted drying arrangements for washing machines	D06F 58/18
---	----------------------------

D06F 58/263

{Gas heating equipment}

Definition statement

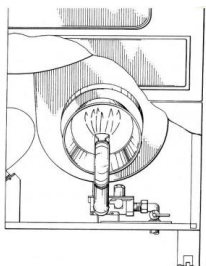
This place covers:

Domestic laundry driers having gas heating equipment including the burner and the gas supply devices.

D06F 58/263 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group:



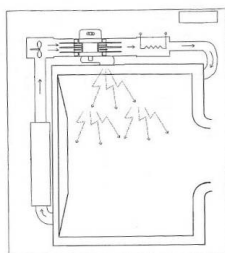
D06F 58/266

{Microwave heating equipment}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 58/30

**Drying processes (controlling a series of operations in domestic laundry
dryers [D06F 58/32](#))**

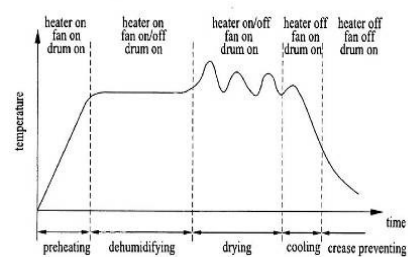
Definition statement

This place covers:

Laundry drying processes per se, i.e. machine working methods characterized by several laundry treating steps.

It is noted that in this group the focus is set on the treating process the laundry undergoes.

Illustrative example of subject matter classified in this group.



The above diagram represents a typical drying method for laundry dryers, in which several laundry treating steps are performed, for example during the drying process the heater and the blower fan are subsequently turned ON/OFF while the drum is rotated.

References

Limiting references

This place does not cover:

Controlling a series of operations in domestic laundry dryers	D06F 58/32
---	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods for washing, rinsing or spin-drying	D06F 35/005
General details of domestic laundry dryers	D06F 58/20
Controlling processes for dishwashers	A47L 15/0018

D06F 58/32

Control of operations performed in domestic laundry dryers (control of operations performed in washer-dryers [D06F 33/50](#); details of control systems, e.g. for detecting or measuring specific parameters or for selection or indication of programs [D06F 34/00](#))

Definition statement

This place covers:

General control aspects that are not covered by [D06F 58/34](#) - [D06F 58/52](#).

D06F 58/34

characterised by the purpose or target of the control

Definition statement

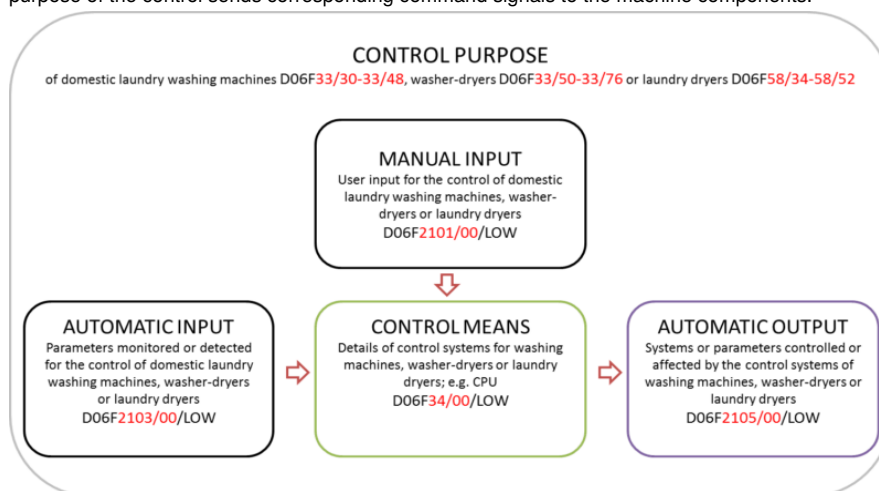
This place covers:

The controlling processes of laundry dryers that are classified in this group and its subgroups according to their specific purpose, e.g. the optimization / improvement of the drying phase or the prevention of laundry ignition.

The further information relating to the (manual) input and the output of these controlling processes is classified with the mandatory indexing codes and any details of the control means per se, i.e. the "hardware" is classified in the groups relating to the details of the control means (see special rules of classification for this group and its subgroups).

Concept

The following picture schematically illustrates how a controlling process of a washing machine, washer-dryer or laundry dryer is classified based on how it works. An input signal (i.e. a user input as "manual input" or an automatically detected signal as "automatic input, e.g. by a sensors) is fed into a control unit as "control means" which depending on the purpose of the control sends corresponding command signals to the machine components.



The preceding image makes reference to the following symbols: [D06F 33/30-D06F 33/48](#), [D06F 33/50-D06F 33/76](#), [D06F 58/34-D06F 58/52](#), [D06F 2101/00](#), [D06F 2103/00](#), [D06F 34/00](#), [D06F 2105/00](#).

A controlling process of a laundry treating apparatus (e.g. a laundry dryer) has a specific "control purpose" and implies the presence of a "control means" (e.g. a CPU), whereby the control means is usually a control unit which comprises a user interface (e.g. a control panel) and several sensors for the automatic detection of e.g. air temperature, laundry humidity, liquid level in the condensed water tank, etc.

Moreover, the control unit is usually configured to perform actions as "automatic output" (e.g. switching a heater ON/OFF, regulating the blower fan speed, etc.), depending on the purpose of the control and based on the input of the user and/or the signals provided by the sensors.

First example: laundry dryer - control method

Definition statement

Control method for a laundry dryer employing a control unit adapted to detect the temperature of the drying air and to switch the fan speed and the heater ON/OFF based on the target humidity of the laundry load, as input by the user, such as to reduce the operating time.

Classification of the example:

- Purpose: [D06F 33/70](#) (Control of the operating time)
- Manual input: [D06F 2101/16](#) (Target humidity for the drying process)
- Automatic input: [D06F 2103/32](#) (Air properties – temperature)
- Automatic output: [D06F 2105/28](#) (Electric heating); [D06F 2105/30](#) (Blowers)

Second example: washer-dryer

Washer-dryer provided with a control circuit, a control panel, an air heater and a temperature sensor for measuring the temperature of the drying air, whereby the user interface allows the user to set the maximum temperature of the drying air, and the control unit is configured to regulate the heater (e.g. by switching it ON/OFF) and the blower fan based on the temperature of the drying air. The control aims to avoid damaging the laundry by overheating.

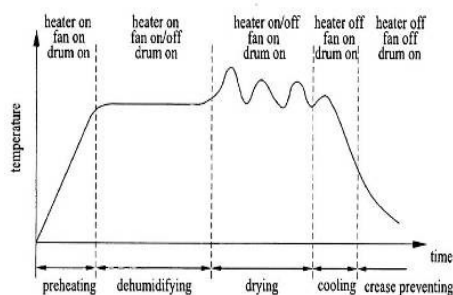
Classification of the example:

- Purpose: [D06F 33/52](#) (Control of the operational steps, e.g. optimisation or improvement of operational steps depending on the condition of the laundry)
- Manual input: [D06F 2101/18](#) (Target temperature for the drying process, e.g. low-temperature cycles)
- Automatic input: [D06F 2103/32](#) (Air properties – Temperature)
- Automatic output: [D06F 2105/28](#) (Electric heating); [D06F 2105/30](#) (Blowers)
- Note: All washer-dryers have to be also classified, as a general rule, in [D06F 25/00](#).

Special rules of classification

It is compulsory to classify also all relevant aspects related to the Purpose, Manual Input, Automatic Input, Automatic Output and Details of the control means.

- Purpose [D06F 58/34](#)- [D06F 58/52](#)
- Manual Input [D06F 2101/00](#)- [D06F 2101/20](#)
- Automatic Input [D06F 2103/00](#)- [D06F 2103/70](#)
- Automatic Output [D06F 2105/00](#)- [D06F 2105/62](#)
- Details of the Control Means [D06F 34/00](#)- [D06F 34/34](#)



The above diagram represents a typical drying method for laundry dryers, belonging to [D06F 58/30](#) in which, during the drying process, the heater and the blower fan are subsequently turned ON/OFF while the drum is rotated. It is noted that [D06F 58/30](#) relates to methods for treating the laundry

whereas [D06F 58/34](#) and subgroups relate to devices for controlling the appliance (i.e. the focus is set on the treating process the laundry undergoes).

D06F 58/36

Control of operational steps, e.g. for optimisation or improvement of operational steps depending on the condition of the laundry

Definition statement

This place covers:

The control of individual operational steps, which are focused on the condition of the laundry.

D06F 58/38

of drying, e.g. to achieve the target humidity

Definition statement

This place covers:

The control of individual operational steps, which are focused on the achievement of one or more target drying parameters.

D06F 58/40

Control of the initial heating of the drying chamber to its operating temperature

Definition statement

This place covers:

The control of individual operational steps, which are focused on the initial heating phase.

D06F 58/42

by unheated air

Definition statement

This place covers:

Control methods or control arrangements having the purpose of steering and/or optimizing the air flow, wherein the air is unheated.

D06F 58/44

of conditioning or finishing, e.g. for smoothing or removing creases

Definition statement

This place covers:

Control methods or control arrangements of laundry dryers having the purpose of conditioning or finishing the laundry, e.g. using a laundry-conditioning agent like water, steam, perfume, starch.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Steam generating arrangements	D06F 39/40
Laundry conditioning arrangements	D06F 58/203
Steam generators per se	F22B 1/28

D06F 58/45

Cleaning or disinfection of machine parts, e.g. of heat exchangers or filters

Definition statement

This place covers:

Control methods or control arrangements having the purpose of cleaning or disinfecting of laundry dryer components, e.g. of the lint filter, condenser, air duct, etc.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of cleaning or disinfection of washer-dryer parts, e.g. of washer-dryer tubs	D06F 33/69
Methods for disinfecting the tub or the drum for washing machines	D06F 35/008
Laundry conditioning arrangements	D06F 58/203
Lint collecting arrangements	D06F 58/22

Special rules of classification

Arrangements for disinfecting the tub or the drum are classified under [D06F 35/008](#).

Devices for collecting lint or fluff are classified under [D06F 58/22](#).

D06F 58/46

Control of the operating time

Definition statement

This place covers:

Control methods concerning the operating time, e.g. reduction of overall operating time.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of the operating time of washer-dryers	D06F 33/70
Timing arrangements	D06F 34/06
Time settings	D06F 2101/14

Time, e.g. duration	D06F 2103/38
Remaining operation time; Remaining operational cycles	D06F 2105/56

D06F 58/48

Control of the energy consumption

Definition statement

This place covers:

The control of individual operational steps concerning the reduction of energy consumption.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of the energy or water consumption (washer-dryers)	D06F 33/72
Arrangements for the recovery of water in laundry washing machines	D06F 39/20
Arrangements for the recovery of energy in laundry washing machines	D06F 39/30

D06F 58/50

Responding to irregular working conditions, e.g. malfunctioning of blowers

Definition statement

This place covers:

The control of individual operational steps concerning the prevention and early detection of potentially dangerous or abnormal working conditions that might cause damage to the user and/or to the machine, e.g. clogging of the lint filter, laundry ignition, electric malfunctions, etc.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of washer-dryers responding to irregular working conditions, e.g. malfunctioning of pumps	D06F 33/74
---	----------------------------

D06F 58/52

Preventing or reducing noise

Definition statement

This place covers:

The control of individual operational steps to reduce and/or prevent imbalance or noise.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of washing machines characterised for preventing or reducing imbalance or noise	D06F 33/48
Control of washer-dryers for preventing or reducing imbalance or noise	D06F 33/76
Arrangements for detecting or measuring imbalance	D06F 34/16
Mountings, e.g. resilient mountings, for the rotary receptacle, motor, tub, or casing; Preventing or damping vibrations, for washing machines	D06F 37/20
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets, for washing machines with a receptacle rotating or oscillating about a horizontal axis	D06F 37/225
Damping vibrations by displacing, supplying or ejecting a material, e.g. liquid, into or from counterbalancing pockets for washing machines with a receptacle rotating or oscillating about a vertical axis	D06F 37/245
Parameters of unbalance or noise monitored or detected for the control of domestic laundry washing machines, washer-dryers or laundry dryers	D06F 2103/26

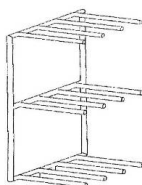
D06F 59/00

Supports adapted to retain the shape of particular articles being dried, e.g. incorporating heating means {(devices for retaining the shape of hats [A42B 1/002](#))}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatuses for changing the form and size of hats	A42C 3/00
--	---------------------------

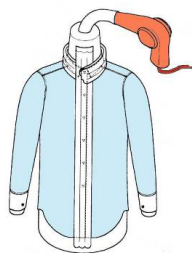
D06F 59/02

for garments

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



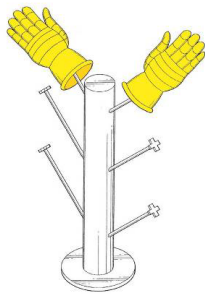
D06F 59/04

for gloves

Definition statement

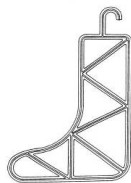
This place covers:

Illustrative example of subject matter classified in this group.

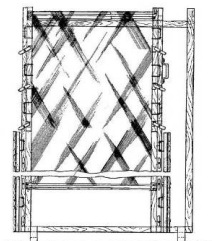


D06F 59/06**for stockings****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 59/08****for curtains, table cloths, or other articles of sheet form****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Stretching devices for straining screens	B07B 1/48
Stretching printing fabrics	B41F 15/36
Quilting frames	D05B 39/005
Frames for embroidering	D05C 1/02 , D05C 9/04 , D05C 9/10
Stretching frames	D06C 3/08

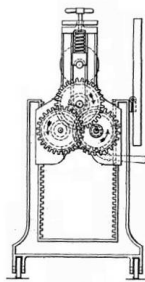
D06F 61/00

Ironing machines using two or more co-operating pressing rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



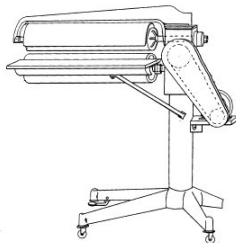
D06F 61/02

with two rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



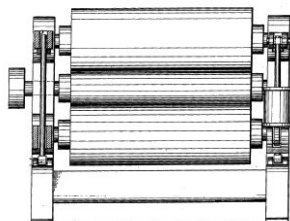
D06F 61/04

with three or more rollers one above the other

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



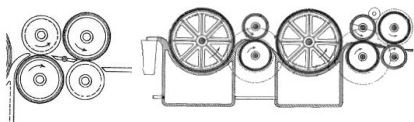
D06F 61/06

with successive pairs of rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



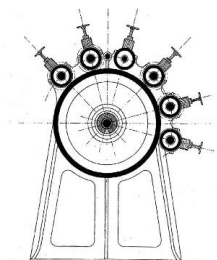
D06F 61/08

with one central roller co-operating with a plurality of circumferential rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



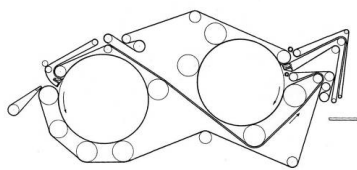
D06F 61/10

with two or more central rollers co-operating with a plurality of circumferential rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



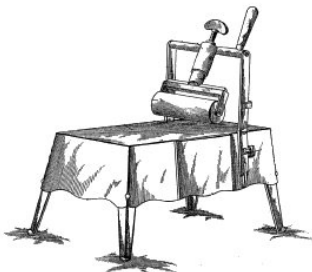
D06F 63/00

Ironing machines having a roller or rollers coacting with a fixed or moving flat bed or table (coverings or pads [D06F 83/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



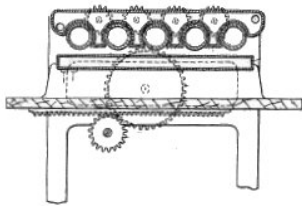
D06F 63/02

with two or more rollers co-acting with a fixed or moving flat bed or table

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



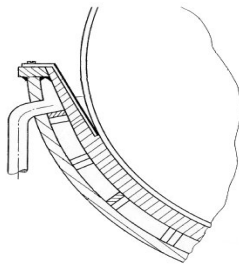
D06F 65/00

Ironing machines with rollers rotating against curved surfaces

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



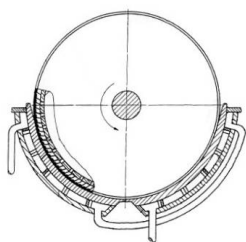
D06F 65/02

with one roller only

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



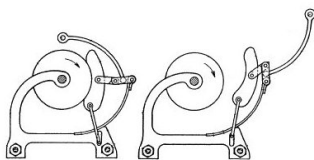
D06F 65/04

the bed being urged against the roller by hand or foot

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



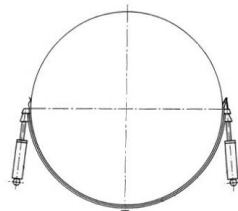
D06F 65/06

the bed being urged against the roller by power

Definition statement

This place covers:

Mechanical safety features.



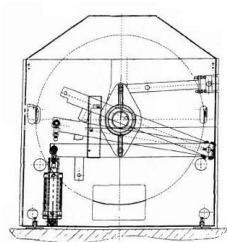
D06F 65/08

the roller being urged against the bed

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

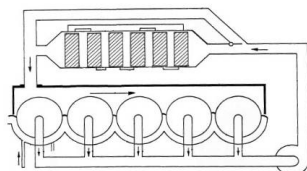
**D06F 67/00**

Details of ironing machines provided for in groups [D06F 61/00](#), [D06F 63/00](#), or [D06F 65/00](#) (coverings or pads for ironing or pressing members [D06F 83/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Coverings or pads for ironing or pressing members	D06F 83/00
---	----------------------------

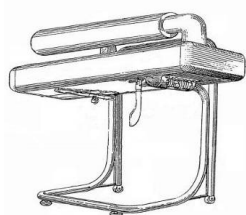
D06F 67/005

{Stands or cabinets}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



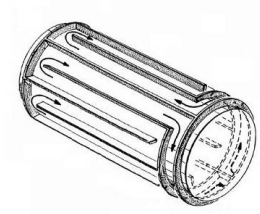
D06F 67/02

Rollers; Heating arrangements therefor

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



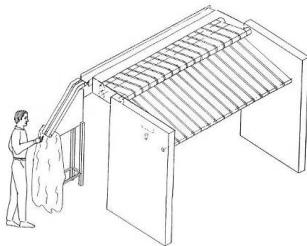
D06F 67/04

Arrangements for feeding or spreading the linen

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 67/06

Means for stripping the linen from the rollers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



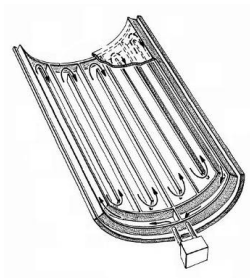
D06F 67/08

Beds; Heating arrangements therefor

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



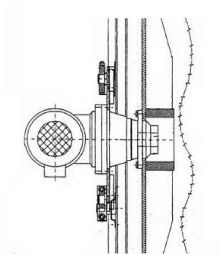
D06F 67/10

Driving arrangements

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



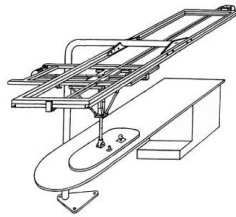
D06F 69/00

Ironing machines not otherwise provided for

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



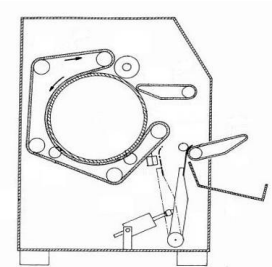
D06F 69/02

using endless or other ironing or pressing belts or aprons

Definition statement

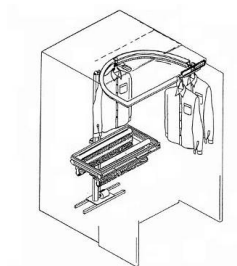
This place covers:

Ironing machines comprising a moving endless belt pressed against a moveable roller.



D06F 69/04**with relatively-sliding flat surfaces****Definition statement***This place covers:*

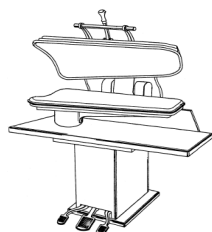
Illustrative example of subject matter classified in this group.

**D06F 71/00**

Apparatus for hot-pressing clothes, linen or other textile articles, i.e. wherein there is substantially no relative movement between pressing element and article while pressure is being applied to the article; Similar machines for cold-pressing clothes, linen or other textile articles

Definition statement*This place covers:*

Illustrative example of subject matter classified in this group.

**References****Application-oriented references**

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Devices, for household use, for cold-pressing garments	A47G
--	----------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Smoothering by cold rolling between two or more co-operating rollers	D06F 45/00
--	----------------------------

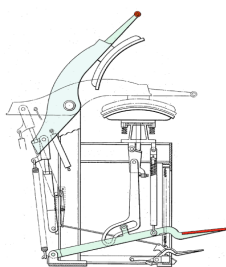
D06F 71/02

actuated wholly by hand or foot ([D06F 71/08](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Apparatuses wherein one or more of the pressing elements is moved laterally between successive pressing operations
--

D06F 71/08

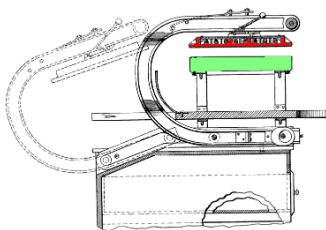
D06F 71/023

{with an upper movable pressing member and a lower fixed pressing member}

Definition statement

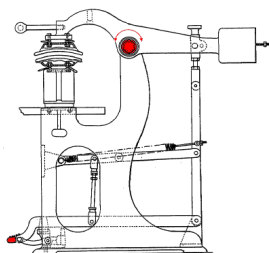
This place covers:

Illustrative example of subject matter classified in this group.

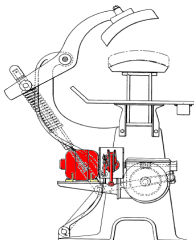


D06F 71/026**{the upper movable member rotating about a fixed axis}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 71/04****power-actuated ([D06F 71/08](#) takes precedence)****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Limiting references***This place does not cover:*

Apparatuses wherein one or more of the pressing elements is moved laterally between successive pressing operations	D06F 71/08
--	----------------------------

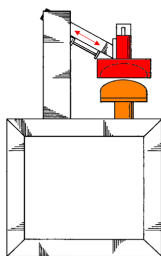
D06F 71/043

**{with an upper movable pressing member and a lower fixed pressing member
([D06F 71/06](#) takes precedence)}**

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



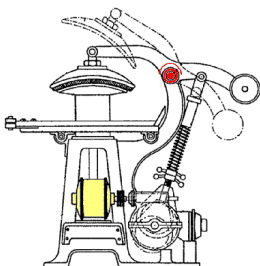
D06F 71/046

{the upper movable member rotating about a fixed axis}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

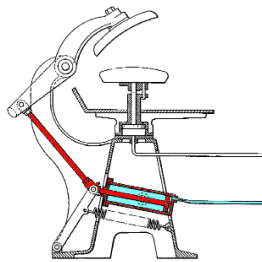


D06F 71/06

fluid-actuated

Definition statement

This place covers:



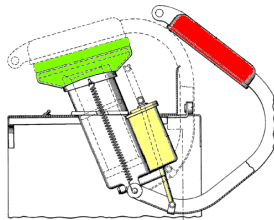
D06F 71/062

{with an upper movable pressing member and a lower fixed pressing member}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



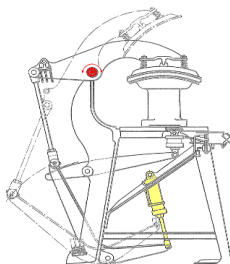
D06F 71/065

{the upper movable member rotating about a fixed axis}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



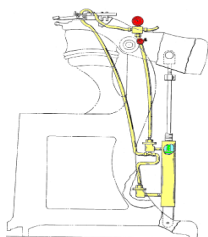
D06F 71/067

{Fluid-control mechanisms for controlling the ironing pressure or the movement of the pressure member}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



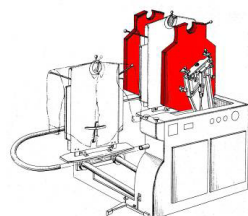
D06F 71/08

wherein one or more of the pressing elements is moved laterally between successive pressing operations

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



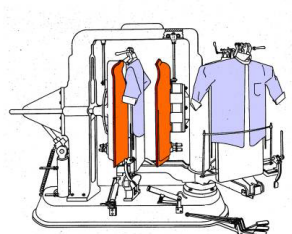
D06F 71/10

by movement about a vertical axis

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



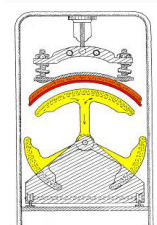
D06F 71/12

by movement about a horizontal axis

Definition statement

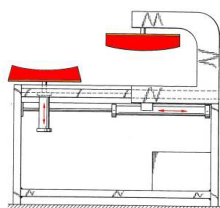
This place covers:

Illustrative example of subject matter classified in this group.

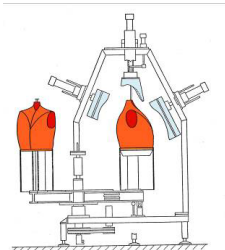


D06F 71/14**by a rectilinear movement****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 71/16****having a pressing element or buck adapted to provide interior support for a garment to be pressed ([D06F 71/18](#) takes precedence)****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Limiting references***This place does not cover:*

For pressing particular garments or parts thereof	D06F 71/18
---	----------------------------

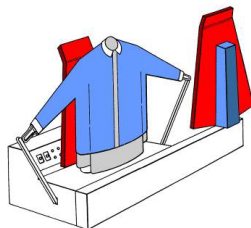
D06F 71/20

for pressing shirts

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



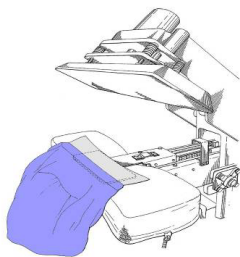
D06F 71/22

for pressing collars

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



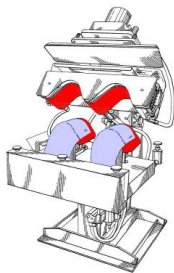
D06F 71/24

for pressing cuffs

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



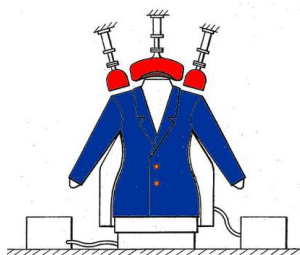
D06F 71/26

for pressing shoulders or necks

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



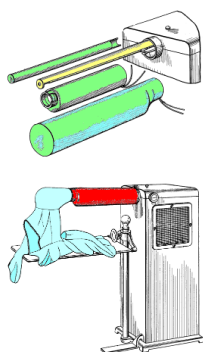
D06F 71/28

for pressing sleeves, trousers, or other tubular garments or tubular parts of garments

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



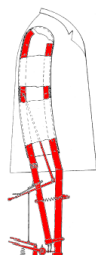
D06F 71/285

{for pressing sleeves}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



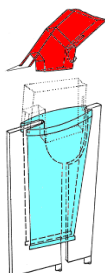
D06F 71/29

Trousers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



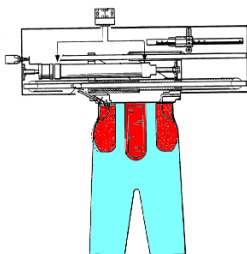
D06F 71/295

{the top portion of trousers}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



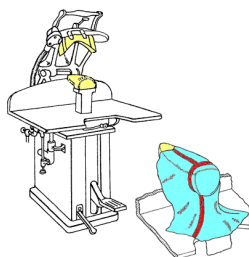
D06F 71/30

specifically adapted for pressing seams (specifically adapted for pressing particular garments or parts thereof [D06F 71/18](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

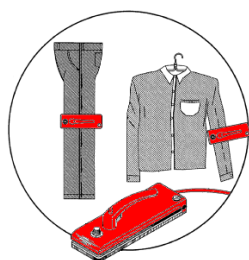
For pressing particular garments or parts thereof

D06F 71/18

D06F 71/32**Details****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.



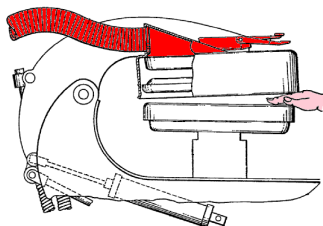
D06F 71/323

{Protective devices, e.g. burn guards}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



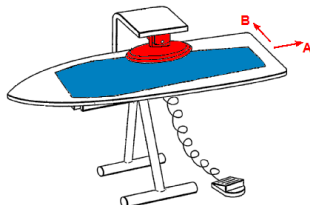
D06F 71/326

{Arrangements for producing a sliding or ironing movement between the pressing elements in closed position}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



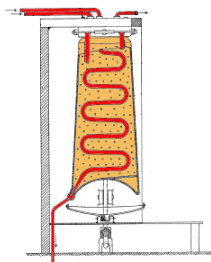
D06F 71/34

Heating arrangements; Arrangements for supplying or removing steam or other gases

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

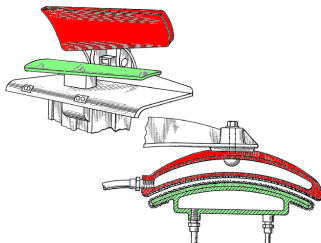
**D06F 71/36**

Pressing elements (for use in pressing particular garments or parts thereof [D06F 71/18](#); coverings or pads therefor [D06F 83/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

For use in pressing particular garments or parts thereof	D06F 71/18
Coverings or pads therefor	D06F 83/00

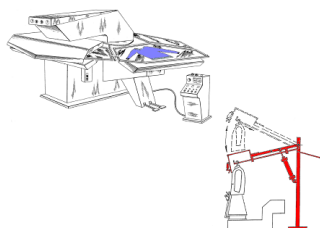
D06F 71/38

**Feeding arrangements (feeding by lateral movement of pressing elements
D06F 71/08)**

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Feeding by lateral movement of pressing elements	D06F 71/08
--	----------------------------

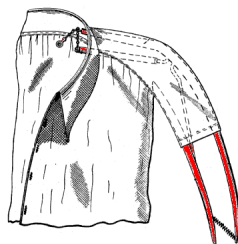
D06F 71/40

Holders or stretchers for the article to be pressed

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Shaping or stretching of fabrics	D06C 5/00
----------------------------------	---------------------------

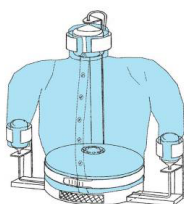
D06F 73/00

Apparatus for smoothing or removing creases from garments or other textile articles by formers, cores, stretchers, or internal frames, with the application of heat or steam (combined with external pressure means [D06F 71/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Combined with external pressure means	D06F 71/00
---------------------------------------	----------------------------

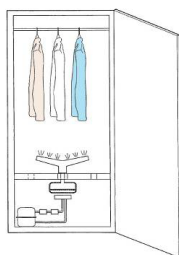
Informative references

Attention is drawn to the following places, which may be of interest for search:

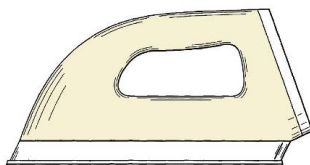
Stretchers for drying purposes	D06F 59/00
Combined with external pressure means	D06F 71/00
Stretchers for use with presses	D06F 71/40
Apparatus for moistening or otherwise conditioning the article to be ironed or pressed, e.g. handheld steamers	D06F 87/00
Dress-forms for the tailoring trade	A41H
Garment stretchers without the application of heat	A47G 25/00
Garment bags	A47G 25/54

D06F 73/02**having one or more treatment chambers****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 75/00****Hand irons****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Carpet irons	A47G 27/0443
Steam generators	F22B 1/28

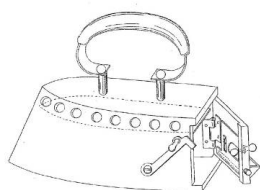
D06F 75/02

Externally-heated hand irons; Hand irons internally heated by means other than electricity, e.g. by solid fuel, by steam

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



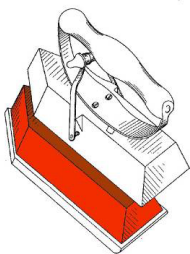
D06F 75/04

by pre-heated block

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



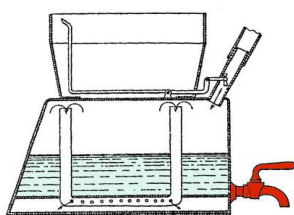
D06F 75/06

with means for supplying steam or liquid to the article being ironed ([D06F 75/32](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Attachments for converting hand irons to steam irons
--

D06F 75/32

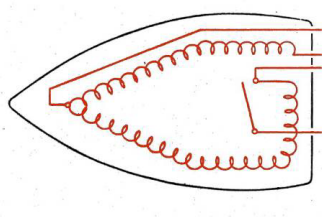
D06F 75/08

Hand irons internally heated by electricity

Definition statement

This place covers:

Any hand iron internally heated by electricity that cannot be classified in one of the lower subgroups of [D06F 75/08](#). This group comprises, for instance, illuminating devices.

**Special rules of classification**

Information regarding steam irons should not be classified in [D06F 75/08](#) itself (information regarding steam irons should be classified in [D06F 75/10](#) and/or lower)

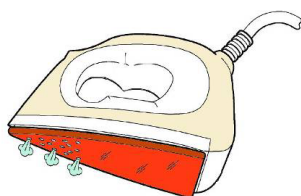
D06F 75/10

with means for supplying steam to the article being ironed ([D06F 75/32](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Attachments for converting hand irons to steam irons	D06F 75/32
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods of steam generation, steam boilers	F22B
--	----------------------

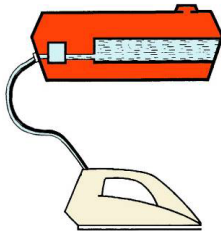
D06F 75/12

the steam being produced from water supplied to the iron from an external source

Definition statement

This place covers:

Hand irons having means for supplying steam, wherein steam or water for producing steam are supplied to the iron from an external source (e.g. an external steam generator or a water reservoir and pump).



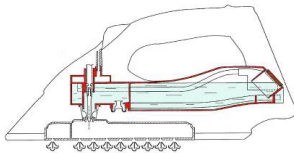
D06F 75/14

the steam being produced from water in a reservoir carried by the iron

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



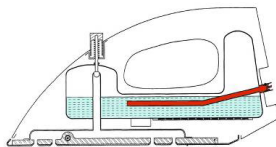
D06F 75/16

the reservoir being heated to produce the steam

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



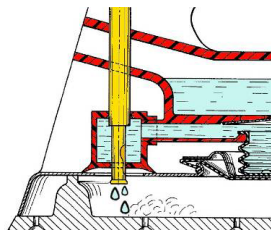
D06F 75/18

the water being fed slowly, e.g. drop by drop, from the reservoir to a steam generator

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



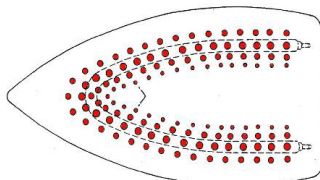
D06F 75/20

Arrangements for discharging the steam to the article being ironed

Definition statement

This place covers:

Steam outlets arrangements.



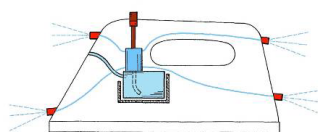
D06F 75/22

with means for supplying liquid to the article being ironed ([D06F 75/10](#) takes precedence)

Definition statement

This place covers:

Hand irons comprising water sprays.

**References****Limiting references**

This place does not cover:

Hand irons heated by electricity with means for supplying steam to the article being ironed	D06F 75/10
---	----------------------------

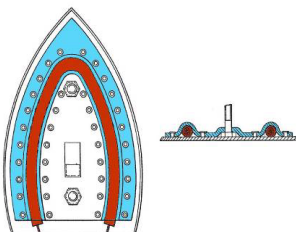
D06F 75/24

Arrangements of the heating means within the iron; Arrangements for distributing, conducting or storing the heat

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Electric heating in general	H05B
Thermostats for home appliances	H05B 1/0255

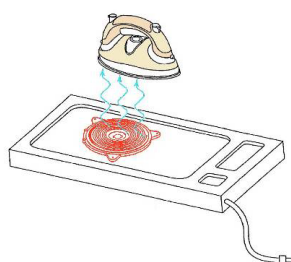
D06F 75/243

{using other than ohmic-resistance heating means, e.g. electrolytic or induction heating}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**D06F 75/246**

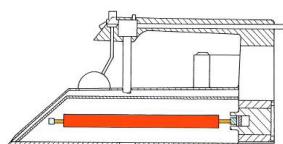
{using infrared lamps}

Definition statement

This place covers:

Any heating means using lamps or light sources for generating heat radiation, for instance:

- Heating means comprising infrared lamps;
- Heating means comprising sources of visible light;
- Heating means comprising sources of ultraviolet light.

**D06F 75/26**

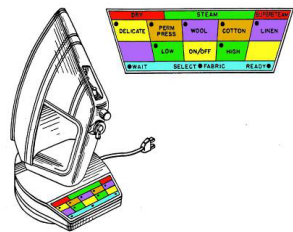
Temperature control or indicating arrangements

Definition statement

This place covers:

Temperature control or indicating arrangements for hand irons, including details for controlling or representing general displays, buttons, position detectors and thermostats of a hand iron.

Illustrative example of subject matter classified in this group:



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Thermally actuated switches	H01H
-----------------------------	----------------------

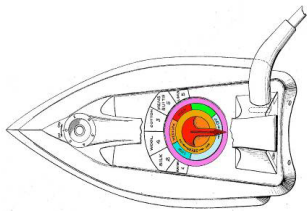
D06F 75/265

{Temperature indicating arrangements; Control knobs}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



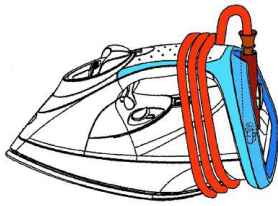
D06F 75/28

Arrangements for attaching, protecting or supporting the electric supply cable

Definition statement

This place covers:

Cable supports that are part of the hand iron.



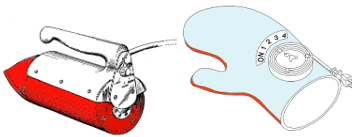
D06F 75/30

Hand irons of special external shape or form

Definition statement

This place covers:

Hand irons having a special shape or use.



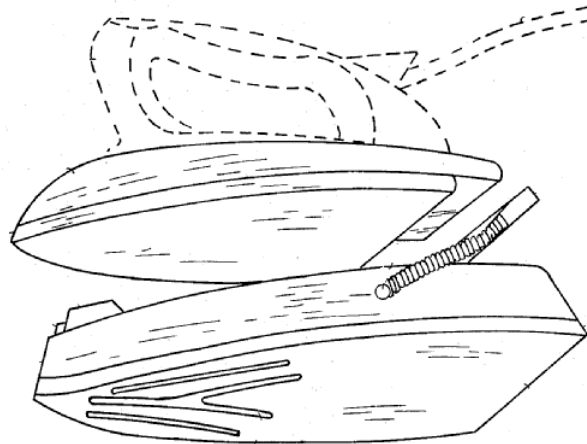
D06F 75/32

Attachments for converting hand irons to steam irons

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:



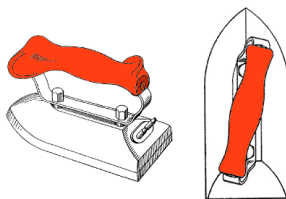
D06F 75/34

Handles; Handle mountings

Definition statement

This place covers:

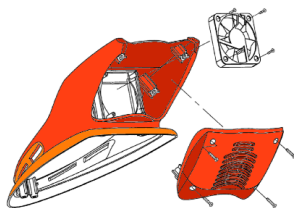
Illustrative example of subject matter classified in this group.



D06F 75/36**Casings****Definition statement**

This place covers:

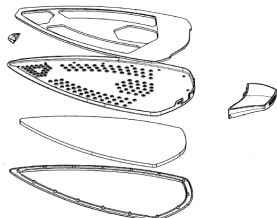
Illustrative example of subject matter classified in this group.

**D06F 75/38****Sole plates ([D06F 75/20](#) takes precedence)****Definition statement**

This place covers:

Construction details of fixed or removable soleplates (how the soleplate is built e.g. layers, materials etc.).

Illustrative example of subject matter classified in this group:

**References****Limiting references**

This place does not cover:

Arrangements for discharging the steam to the article being ironed
--

D06F 75/20

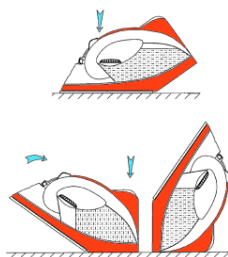
D06F 75/40

Stands or supports attached to the iron

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



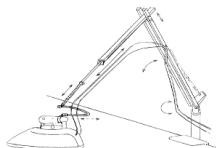
D06F 77/00

Arrangements for exerting pressure on, lifting, or guiding hand irons

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



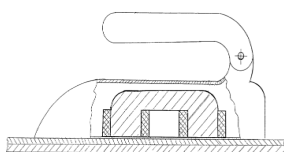
D06F 77/005

{using an electro-magnet or a permanent magnet in the iron or the ironing board}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



D06F 79/00

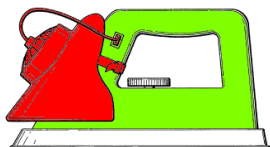
Accessories for hand irons

Definition statement

This place covers:

For instance: water containers for filling the iron.

Illustrative example of subject matter classified in this group.



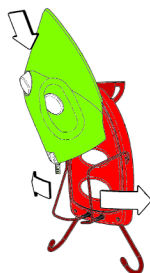
D06F 79/02

Stands or supports neither attached to, nor forming part of, the iron or ironing board

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



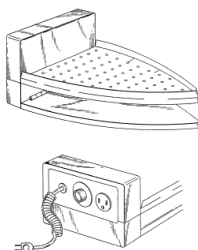
D06F 79/023

{with means for supplying current to the iron}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

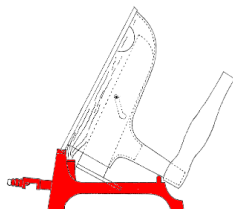


D06F 79/026**{for cordless irons}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 79/04****Stoves or other heating means specially adapted for heating irons externally****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Stoves in general	F24
-------------------	---------------------

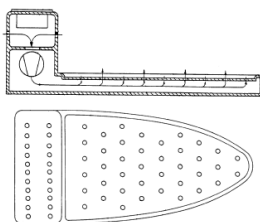
D06F 79/06

Means, not forming part of the iron, for cooling the iron

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

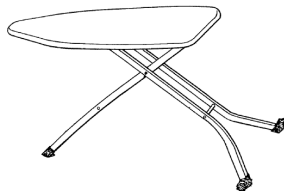
**D06F 81/00**

Ironing boards (coverings or pads therefor [D06F 83/00](#); kitchen cabinets with ironing boards movable outwards to a position of use [A47B 77/10](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Limiting references**

This place does not cover:

Coverings or pads therefor	D06F 83/00
Kitchen cabinets with ironing boards movable outwards to a position of use	A47B 77/10

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tables in general	A47B
-------------------	----------------------

Ironing boards stored in kitchen cabinets	A47B 77/10
Ironing boards combined with ladders	E06C

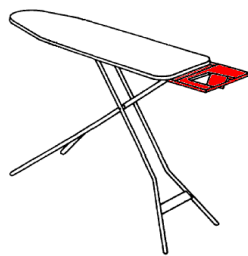
D06F 81/003

{with flat iron support}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



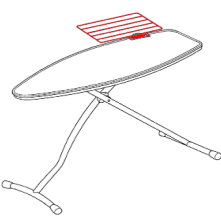
D06F 81/006

{with fabric support or garment rack}

Definition statement

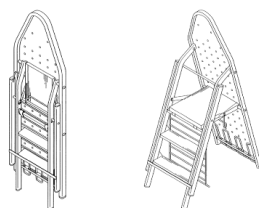
This place covers:

Illustrative example of subject matter classified in this group.

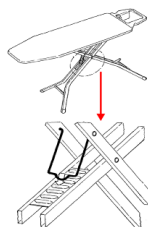


D06F 81/02**with collapsible underframe****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**D06F 81/04****with means for adjusting height****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Tables with means for varying the height of the top

[A47B 9/16](#)

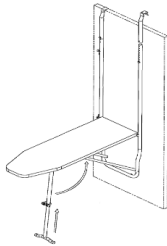
D06F 81/06

attachable to independent supports, e.g. walls

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



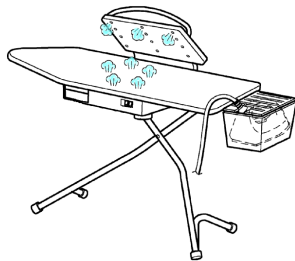
D06F 81/08

incorporating heating, steaming, or forced ventilation means

Definition statement

This place covers:

Illustrative example of subject matter classified in this group:



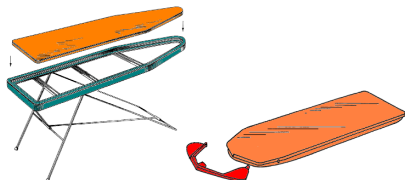
D06F 81/10

Top board elements

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



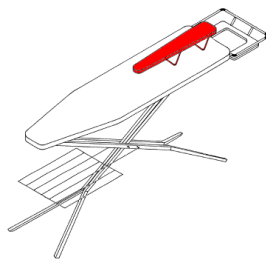
D06F 81/12

Sleeve boards; Attaching means therefor

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



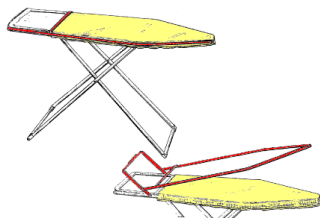
D06F 81/14

Means for attaching covers

Definition statement

This place covers:

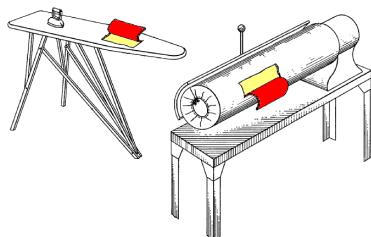
Illustrative example of subject matter classified in this group.



D06F 83/00**Coverings or pads for ironing or pressing members****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

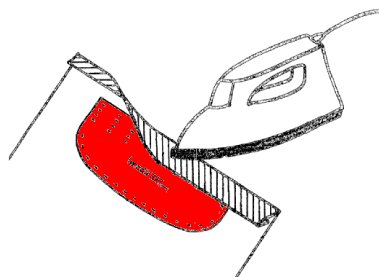
Attention is drawn to the following places, which may be of interest for search:

Ironing machines using two or more co-operating pressing rollers	D06F 61/00
Ironing boards	D06F 81/00

D06F 85/00**Independent elements for interposition between the article and the ironing or pressing surface****Definition statement**

This place covers:

Illustrative example of subject matter classified in this group.

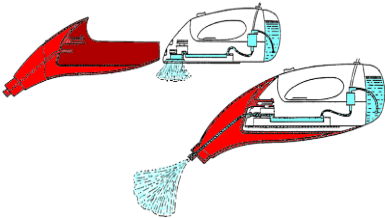


D06F 87/00

Apparatus for moistening or otherwise conditioning the article to be ironed or pressed (apparatus for smoothing or removing creases from garments or other textile articles by formers, cores, stretchers or internal frames, with the application of heat or steam [D06F 73/00](#) {; devices used in combination with a laundry dryer [D06F 58/203](#)})

Definition statement

This place covers:
Steamers.



References

Limiting references

This place does not cover:

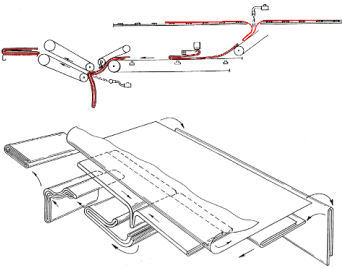
Devices used in combination with a laundry dryer	D06F 58/203
Apparatuses for smoothing or removing creases from garments or other textile articles by formers, cores, stretchers or internal frames, with the application of heat or steam	D06F 73/00

D06F 89/00

Apparatus for folding textile articles with or without stapling

Definition statement

This place covers:
Devices for creating temporary folds.



References

Limiting references

This place does not cover:

Hand irons with means for supplying steam to the article being ironed	D06F 75/10
Devices for creating permanent folds	A41H 43/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Seam	generally formed by two pieces of cloth stitched and/or glued together
Fold	generally formed by folding a piece of cloth onto itself, such that a folding line is formed

D06F 89/005

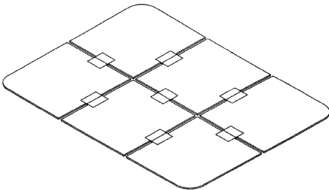
{Manual folding devices, e.g. for folding bed sheets ([D06F 89/02](#) takes precedence)}

Definition statement

This place covers:

Manual folding devices for any kind of household textiles with the exception of textile articles to be worn.

Illustrative example of subject matter classified in this group.



D06F 89/02

of textile articles to be worn, e.g. shirts

Definition statement

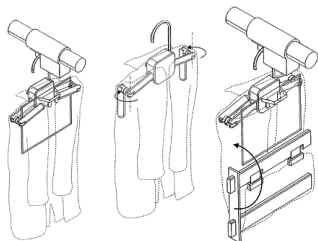
This place covers:

Manual folding devices for textile articles to be worn, with exception of shirts or parts thereof.

D06F 89/02 (continued)
Definition statement

CPC - D06F - 2024.05

Illustrative example of subject matter classified in this group.



D06F 89/023

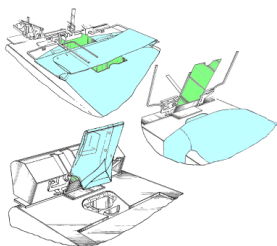
{of shirts}

Definition statement

This place covers:

Manual folding devices for shirts or parts thereof.

Illustrative example of subject matter classified in this group.



D06F 89/026

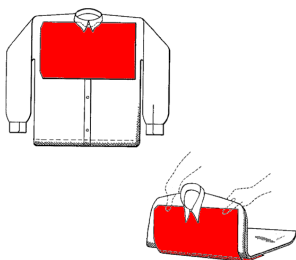
{Details, e.g. collar holders}

Definition statement

This place covers:

Collar holders for manual folding devices for shirts.

Illustrative example of subject matter classified in this group.

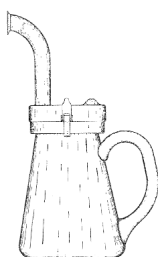


D06F 91/00**Starching apparatus****Definition statement**

This place covers:

Manual devices for wetting clothes.

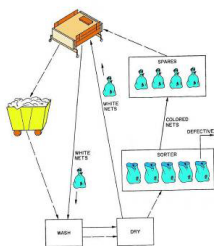
Illustrative example of subject matter classified in this group.

**D06F 93/00****Counting, sorting, or marking arrangements specially adapted for laundry purposes****Definition statement**

This place covers:

Industrial clothes counting or sorting arrangements.

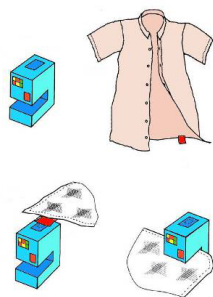
Illustrative example of subject matter classified in this group.



D06F 93/005**{Marking arrangements}****Definition statement**

This place covers:

Marks as well as marking arrangements.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Record carriers with integrated circuit chips

G06K 19/07

D06F 95/00

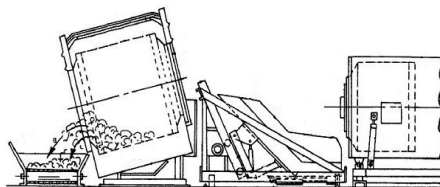
Laundry systems or arrangements of apparatus or machines; Mobile laundries
([D06F 31/00](#) takes precedence)

Definition statement

This place covers:

Industrial laundry arrangements comprising a combination of laundry sorting and/or transporting and/or treating appliances.

Illustrative example of subject matter classified in this group.



References

Limiting references

This place does not cover:

Washing installations comprising an assembly of several washing machines or washing units	D06F 31/00
---	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Laundries as buildings	E04H
------------------------	----------------------

D06F 95/002

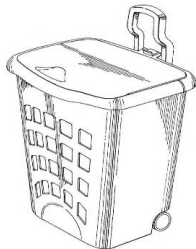
{Baskets or bags specially adapted for holding or transporting laundry;
Supports therefor}

Definition statement

This place covers:

Basket or bags for holding or transporting laundry.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sack holders	B65B 67/12 , B65B 67/1205
--------------	--

D06F 95/004

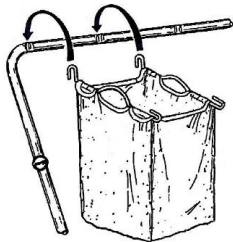
{Bags; Supports therefor}

Definition statement

This place covers:

Supports for bags for holding or transporting laundry.

Illustrative example of subject matter classified in this group.



D06F 95/006

{Bags for holding the laundry during washing ([D06F 5/005](#) takes precedence)}

Definition statement

This place covers:

Bags for holding or transporting laundry, which are suitable for being washed together with their content.

Illustrative example of subject matter classified in this group.



D06F 95/008

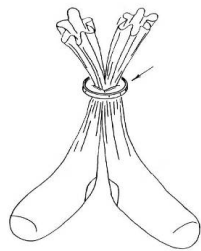
{Devices for keeping articles together during laundering, e.g. for keeping socks in pairs ([D06F 95/004](#) takes precedence); Devices for protecting or shielding certain parts of the articles during laundering, e.g. button protectors}

Definition statement

This place covers:

Devices for shielding delicate clothing articles (e.g. brassieres) and/or for keeping small articles (e.g. socks) together.

Illustrative example of subject matter classified in this group.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Clothes pegs	D06F 55/00
Pairing socks	A41B 11/002
Friction grip fastenings / using pivoting jaws	F16B 2/10